An Address
ON
SYMPTOMS IN PERSPECTIVE.

Delivered before the North London Medical and Chirurgical Society on Thursday, Oct. 20th, 1892,

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GENTLEMEN,—Allow me, before I proceed to the subject of my short paper, to congratulate you on the prosperity and progress of this Society. It is, perhaps, somewhat late in the day to discuss the advantages of such a Society as this, yet I venture to doubt if it is estimated at its full value by many even of its members. We should all agree, I take it, that great benefits are conferred by it, not only on those who belong to it, but throughout the profession. Every profession has its advantages and defects. The chief advantage of ours, in one respect, is its independence—the ample scope it gives for liberty of thought and action. We are conspicuously free to say and do what we deem right. "Doctors differ" should be, when properly understood, no term of reproach, for it means that the different views of doctors are so apparent only because they are very freely expressed. Medicine and surgery are not more uncertain than theology and law, but the uncertainties are more constantly and openly acknowledged. Now I think this is an advantage; but there is also a defect. As our thoughts and opinions are not regulated or controlled, so we greatly lack any formal bond of common union. We are as a body too loosely knit together. In one sense we should be stronger, in another happier, if as a profession we were more closely bound; and I think that a Society such as this goes far to supply the want, and that therefore in this respect it has signal value beyond all the encouragement it gives to work and the facilities it affords for the publication of it. But it has another claim, and a wide one. I for one often feel the force of the objection which is taken to the ease and rapidity of publication. I cannot help sometimes thinking that we should be better off if a wiser care and stricter selection were exercised over what is called our literature. A free press is not always an unqualified blessing. But I observe that almost all the evil comes from a particular, and that a very limited, quarter. Comparatively few make all the noise. On the contrary, the great body is perhaps too silent. While on the one hand sound is too often a sign of emptiness, on the other what wealth of information, what a mine of knowledge must exist unrevealed! A Society like this, then, has, I conceive, its chief purpose in encouraging those to speak who ought to be attentively listened to. It ought to be the means of bringing to the surface much useful knowledge which but for it might never appear; and in this direction there is one point further to which I would allude. It has always seemed to me admirably adapted to the character of very much of our knowledge—to the growth and development of that kind of knowledge with which we have to deal. I think that the history of medicine shows that the truth we reach is wont to emerge only very slowly out of error and confusion. In its earlier stages it is not a thing to fix and formulate, but to discuss and criticise; and the principles we endeavour to establish are not, perhaps cannot be from their very nature, final ones. Of our work, beyond all others, it may be said that the goal of to-day is the starting-post of to-morrow; and so at least very much of our knowledge may be called floating knowledge. It is not fixed and crystallised, but is uncertain and constantly shifting. Now it is with knowledge of this kind—this mixture of half truths with much error and with more confusion—that our societies are particularly well fitted to deal, for here it is thoroughly criticised and discussed. It is considered from various points of view, and the chaff is winnowed from the grain. We are often reproached, and not without justice, with the kind and degree of evidence we are too disposed to accept; but this to a great extent is inevitable to the nature of the inquiry we are engaged in, and the mischief is largely corrected when it passes through the ordeal of an evening's discussion. And, finally, a society like this brings out not only strength on the intellectual side, but surely it does good work also on the moral side. This may not be the most prominent, but I venture to think that it is very far from being one of the least of their functions, and in this they discharge a duty which cannot be so easily handled elsewhere. Those of equivocal character and antecedents they may even reject as members, and in every well-regulated body none but those whose career is without stain or reproach can be elected to high office. On the other hand, they have the enviable privilege of placing publicly the stamp of professional approval on noble lives and worthy work. This great moral influence which our societies are especially fitted to exercise, who shall measure it?

And may I pause a moment here to pay a passing tribute to the memory of Le Gros Clark, who was, you know, a member of the staff of this hospital? In the death of Le Gros Clark the profession has sustained a severe loss—a loss far greater perhaps than may appear to many who did not know him well; for although the singular charm of his courtesy was appreciated by all his friends, some of the finest qualities of his nature were only reached by those who had the privilege of close and constant intercourse. It was my good fortune to have been intimately associated with him for many years as an examiner at the College of Surgeons, and so I came not only to admire his attainments, but to hold him in very high esteem. That he was not only a distinguished surgeon and a very wise and safe one, but a man of wide general culture, will be admitted by all. He had read and thought much, enjoyed good literature, and was deeply interested and well versed in the scientific questions of the day. His sympathies were always with the higher and nobler views, and he strove to raise the thought and tone of his profession. To regard surgery as a mere art he believed to be a very inadequate expression of it; scientific surgery was his aim, and his thought and work were ever in this direction. This careful culture of his mind and its constant exercise upon the higher lines of thought were evident in a remarkable refinement, and to this was added the attraction of great modesty and deference to the judgment of others, even of those far beneath him in power and attainments, which in the practice of his profession sometimes became almost weakness. He was singularly conscientious. This was carried so far as to lead frequently to indecision, which detracted from the weight, if not the value, of his opinion on difficult questions in surgery. He was apt to hesitate and qualify when a more ignorant man would have greater influence with others by more direct and confident assertions. This distrust of himself and deference to the opinion of others, with perhaps dislike of grave responsibility, may go some way to explain how it was that Le Gros Clark, although very eminent as a surgeon, never occupied the place in professional and public estimation to which he was entitled. But he had little regard for popularity and cared still less for the fruits of it. He valued far more the place he occupied in the esteem and affection of his friends. His ideal was a lofty one, and by this standard he always tried himself. He was from first to last a thorough gentleman, simple and sincere, pure and upright in word and deed. And now to the proper subject of my paper.

ON SYMPTOMS IN PERSPECTIVE.

Everyone knows that the various symptoms of disease and injury possess very different degrees of importance; that they differ widely in value to the surgeon. For instance, as symptoms of calculus in the bladder the frequent presence of blood in the urine has a much higher value than abnormal frequency of micturition. In the diagnosis of fracture of the neck of the femur shortening is of more importance than eversion, and as evidence of acute inflammation rise of temperature is far more trustworthy than pain. And everyone knows, too, that the diagnosis of a case usually depends on an assemblage of symptoms, no one of which may be in itself very strong, but which in conjunction with others may mean much. For instance, neither a rigor nor an attack of sweating, nor a rise of temperature by itself or in association with certain other symptoms, may be significant of septicæmia, but a rigor followed by profuse sweating and associated with a high temperature occurring for the first time at a certain period after the infliction of a wound is indeed very strong evidence of the occurrence of blood poisoning. Again, as evidence of disease of the hip-joint in childhood, neither lameness nor stiffness of gait is by itself very strong, but a combination of these two signs in a child, with a history of their gradual onset and perceptible progress, followed by alteration of form, points very clearly to the disease in question. Once more, neither change of colour nor decline of temperature nor loss of sensibility is by itself of much

value as evidence of mortification, but an association of these three is strongly suggestive of impending death. But furthermore, symptoms are sometimes in apparent contradiction, and then more skill and judgment are required to appraise their relative significance. For example, how often are the characters of tumours apparently discordant in evidence of their nature? A tumour in the neck or elsewhere may be hard enough for cancer, yet so painful, tender and hot, with superficial redness, as to suggest strongly the result of inflammation. Or a tumour in the breast may present some of the more obvious of the physical characters of scirrhus; yet if it occur in a young woman, an element of doubt is introduced into the case. Or again, suppose a smooth, uniform, fluctuating tumour in the scrotum, which is not translucent. Is it a hydrocele? The contradiction here must be resolved by further evidence. In syphilis also how often are the characters of the disease presented at the time of examination at variance with the history given of the case. And here is an illustration of the pitfalls which may beset the surgeon on either side. The more experienced men will usually, and for the most part justly, with confidence in their ability to judge correctly from what they see, ignore that part of the history which seems in contradiction to the facts before them. Yet, by the too rigid practice of disbelieving all that is not in harmony with their own fixed ideas, they may become confirmed in false doctrines, while younger men with conscientious zeal for knowledge, by attaching too much importance to what they are told and too little to what they see, may be led into confusion or error. Again, the obscurity which besets the nature of so many cases of intestinal obstruction is no doubt largely due to the fact that with our present knowledge we are not able to appraise even the absolute, and still less the relative, value of many symptoms which are apparently in contradiction. But of all classes of affections none illustrate so forcibly the diversity and opposition of symptoms as those which are called hysterical. In some of these cases all the resources of the surgeon are severely taxed in the endeavour to form an accurate and complete diagnosis, and perhaps no cases in surgery demand greater delicacy of judgment in diagnosis than those in which a hysterical or neuralgic state is engrafted on some actual mischief. The difficulty is not in forming a decided opinion and acting on it, even perhaps to the patient's advantage, but in estimating at their proper value the several symptoms that arise and reconciling them with a sound view of the nature of the case.

So, then, each of the symptoms which present themselves in any given case is to be regarded not so much in its absolute value as in its relative significance. The true meaning of any particular sign is not to be reached by considering it alone, but by viewing it in relation to the rest. No doubt it sometimes happens that a single symptom may have a value which outweighs that of all the others put together; but, even then, this will be made all the clearer by comparison, and it is in such instances especially that the importance of being able to estimate the relative value of the several symptoms is most plainly seen. So that as surgeons by observation and reflection become more skilful they learn to place the symptoms which present themselves in any given case in their proper relative position, and in taking measure of the proportion of each they learn to form a mental picture of the actual state of things. Certain signs are brought into the foreground; others are put back into the distance. In short, what the rules of perspective are to the artist this sound judgment of the relative proportion of symptoms is in surgical diagnosis. And thus it comes to pass that at length in many cases only a few points in each are taken much notice of. Many features, which to those less conversant may seem to be of great importance, are unheeded. Take, for example of this, a case of strangulated hernia. A surgeon familiar with his work will listen to the complaint of pain and general distress. He will of course note the condition of the abdomen, the character of the pulse and so on; but he will grasp at once the two great facts of vomiting and a tumour in the inguinal region, and from these he will promptly decide on his course of action. Nor will he be led to falter in his decision of the necessity of giving immediate relief to the strangulation by statements that the patient is too weak to bear an operation or that the sickness is less urgent than it was an hour or two since. He understands the relative value of the several symptoms and knows how to assign to each its due degree of importance. But it is not always thus with a surgeon who is strange to the work. He too sees that there is sickness and ascertains the existence of a tumour; but he learns that the tumour is not tender, that the patient himself attaches no importance to it, states carelessly that it is of long standing, and has not altered for years; that the pain is in another part of the abdomen; that he is too weak to bear an operation, and would be stronger, he is sure, if he could have a little previous rest; and so on. Then, on pondering over the case, the doctor comes to give undue importance to the many reasons which appear to tell against an immediate operation, and he allows these to outweigh the two or three which should have been decisive.

I know of nothing which marks more plainly the different degrees of excellence of different surgeons than this ability of estimating the value of symptoms in their relation to each other. It is the natural fruit, and can be the fruit only, of work at the bedside. In spite of the nonsense which is often talked about theory and practice, we know very well that it is not always the man who can discourse most learnedly upon disease that can deal with it most ably when it is brought before him. And I believe that comparative failure in clinical work lies chiefly in this direction. A man may know what to look for and how to look for it; he may investigate a case thoroughly and scientifically and yet, by the very multiplicity of the facts which he has elicited, he may be drawn into error. He has plenty of subject for the picture he has to form, and the effect should be consistent and satisfactory; but he breaks down in the disposition and arrangement of his material; he has no skill in grouping the several objects; everything is too much on the flat; there is no depth of space in the landscape, and the result is either a false idea or mere confusion. But although the ability to judge correctly of the relative significance of symptoms is in practice of paramount importance, yet out of the confidence which comes of the long-continued use of it evil may arise. If the habit of seizing on certain symptoms only for guidance in diagnosis and treatment become too much a matter of routine, mistakes, and perhaps serious ones, will occasionally occur. Signs neither usual in a particular case nor prominent may be neglected, which nevertheless, if carefully considered, might materially modify or altogether change the view taken of it, and this perhaps is most likely to occur in cases which appear to be clear and free from all doubt. Where neither the nature of the case nor the proper treatment is at once obvious the sound plan of making a thorough examination throughout is the best safeguard against such errors; and even in the clearest and simplest cases it is always well, as a matter of precaution, to supplement our diagnosis by a general investigation such as this. Such a course can hardly ever be amiss, and even if nothing more should come of it a thorough and complete examination will be always useful to ourselves as a matter of discipline.

Hence a chief source of the weakness of specialism, as it is called. By the too exclusive devotion of attention to a particular part or subject symptoms which are elsewhere revealed may be either overlooked or ignored, or, if recognised and considered at all, are in danger of being relegated to the background in the presence of others which point in the direction to which the practitioner is accustomed to look. Anyone with such a restricted view works, as it were, in blinkers. He can see only within the limits of a narrow space; he is unable to look around. The defects of exclusiveness are perhaps too often seen even in physicians and surgeons. A patient may have two ailments, one of which falls within the scope of the former, the other of the latter. It may be said that it is natural that the surgeon should give more heed to the one and the physician to the other. But is there not danger from this want of comprehension that neither will be able to do justice to the claims of both?

Errors in diagnosis and practice may be arranged under two heads: those due to ignorance and those due to carelessness; and very many, no doubt, are the result of the two causes combined. Consciousness of one's ignorance may do much to avert the errors of carelessness, and he who has confidence in his own judgment should be of all men most careful in inquiry. It may be truly said that in the examination of a patient, or in the notes of it, a man will often disclose much more of himself as a surgeon than of his patient's case. An inquiry may be very full and complete, and yet the result may be confused or obscure from the absence of all proportion in the adjustment of symptoms. Or, again, the salient points of a case may be at once detected, and yet the view taken of it may be

defective through the neglect of subordinate yet withal very significant features. In short, an examination of any given case can be regarded as satisfactory only when all the symptoms that can be elicited are carefully considered and then duly estimated according to their relative value.

It may be observed that in the foregoing remarks I have assumed the existence of the symptoms I have spoken of to be matters of fact. I have spoken of them as real and actual because I could state the case more clearly and make my meaning plainer in this way. But of course in one sense everything depends on the reality of symptoms. I need not dwell on the distinction between real symptoms and feigned ones, nor upon the well-worn and hackneyed division of objective and subjective symptoms. Accuracy of observation is an art to be acquired only by education and practice; and accuracy of statement is an art, too, to be acquired only by education and practice, dependent often upon accuracy of observation, but by no means always associated with it. Hence the need of long and careful training on the part of the student and surgeon before he can become sufficiently skilful and trustworthy in this respect, and hence the error into which patients of all persons are liable to fall. For most of them not only lack the education and training just spoken of, but, being the sufferers, the impulse to over-statement and exaggeration is naturally very strong. Every surgeon of course in some measure understands this and allows for it, and so of course attaches far greater importance and value to the symptoms which he can ascertain for himself, and which are called objective, than to those the existence of which he can learn only through the statement of the patient, and which are termed subjective. Yet a great, if not an equal, danger besets the surgeon here on either side. He stands, indeed, on firm ground in the presence of objective symptoms, but if so assured he comes to ignore the subjective ones, he may be led into serious error. A man who had previously suffered from gout in the form of phlebitis and in other ways gradually became jaundiced, while a tumour which everyone recognised as a distended gall-bladder presented itself. Weakness and emaciation gradually increased, but his chief complaint was of constant, dull, but severe pain in the back. The case seemed tolerably clear to most who saw it, and more than once it was proposed to open the gall-bladder. But he died without an operation, and after death malignant disease of the pancreas in an advanced stage was discovered, which had not been suspected during life; no disease of the liver, and only a few small gall-stones in the bladder, none of which were impacted. The objective symptoms were so marked that they and the persistent and severe pain in the back were referred to a common cause, which was believed to be confined to the region of the liver. Subjective symptoms cannot for the most part be compared with objective ones, but sometimes—and this perhaps is too often the case with the most experienced men—they are cast so far into the distance as to be lost sight of altogether. We depend most on what we can ascertain for ourselves by sight, hearing, touch, and so on, for here we have to do with facts and can, comparatively speaking, accurately measure them; while the others are not only of uncertain dimensions, but vague and obscure in other ways, especially in relation to our present knowledge, or rather our ignorance, for we are far less skilful in their correct interpretation.

The uncertainty of medicine and surgery! Yes; our knowledge and practice are uncertain enough truly—not more uncertain than many other studies, not so uncertain as some of them, I repeat. But we do best not in excusing or explaining this, which can easily be done, but by working with the view of erasing the reproach. And in this, indeed, in looking back over recent years, we may be of good cheer, for the great progress of medicine and surgery has been by the application of more exact methods and instruments of research; facts have been more industriously and thoroughly sought for and their existence and value subjected to a more rigorous and searching criticism. Theories and speculation and guesses are being superseded by more scientific methods of inquiry. Sciences more exact in themselves, such as physics and chemistry, have been brought, by the advance of a sounder physiology, into closer relation with medicine and surgery, while pathology, the lineal descendant of these, is springing into new and vigorous life. Yes; the issues of our work at the bedside are still uncertain enough, but look at the progress of recent years, and think of what it means for the time to come.

Hunterian Lecture

ON

ABSORPTION IN RELATION TO PHYSIOLOGY, PATHOLOGY AND THERAPEUTICS.

Delivered before the Hunterian Society, Oct. 12th, 1892,

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MR. PRESIDENT AND GENTLEMEN,—When I received from Mr. Poland your invitation to address you I am afraid I too hastily assented. I was attracted by the force of old associations, by a desire to revisit the arena of former work, and to renew pleasant intercourse with old friends. Had I waited to reflect that I was expected to bring with me an address worthy of my audience I should have adopted the wiser course and not have come. Not only is the choice of a subject difficult, but, when chosen, to treat it in a manner worthy of the occasion, is more difficult still. However, being committed to the task, if you should feel disappointed in your expectation of instruction or entertainment, I can only submit that you have brought the infliction on yourselves. But I feel sure that, if I cannot appeal to your judgment, I may with confidence rely upon your generosity. It is useful from time to time to revert to first or fundamental principles in studying the mode of action of nutrient, medicinal and toxical agents on the system. To pursue this study with any approach to fulness would require many addresses, and I fear that even the one I have rashly undertaken will be a heavy tax on your patience. In recent times great advances have been made in extending the methods of bringing the system under the influence of nutrient and medicinal agents. We are no longer so limited in practice as formerly to the simple method of introducing medicines into the stomach. Every part, every tissue of the body has been made use of as a route of entry or discharge. Indeed, whether we will or not, all those surfaces which are in direct contact with the atmosphere are in constant use as routes of entry or of exit—that is, of exchange of elements, useful or noxious. Although we are never free from the influence of atmospheric pressure, we know that this is nearly always uniform. The pressure upon the external surface of the body is counterpoised by the pressure upon the lungs. On the other hand, the relative pressure upon the heart and bloodvessels and the lymphatics and other tissues of the body is constantly varying, and according as the pressure changes from the one side to the other, exudation and absorption change. Artificially, again, almost every internal tissue of the organism may also be made the medium for introducing foreign agents into the system. This is now familiar enough, and so no doubt is much that I am about to say in relation to my theme. There are physical laws so familiar, so intimately linked with our habit of thought, that we are apt at times to fail to trace or fully to appreciate the part they play in the living work before us; and still more are we apt to fail in calling these forces to our aid when seeking to restore or to preserve that happy equilibrium of all the functions which is physiology in perfection, and when we essay to assist physiology in her contest with intercurrent trials. I do not say that we shall try to counteract pathology, for pathology is simply physiology under difficulties. I say that all the surfaces and almost every tissue in the body may be the medium for the entry of nutrient and noxious elements into the system. But there is a correlative fact not so generally remembered upon which I wish more especially to insist. This is that we may often chase and control noxious elements through the same routes. A wider theme could hardly be chosen. It embraces the whole science of medicine. One may easily fall into disconnected discursions. I shall therefore limit myself as much as possible to some illustrations and reflections that flow from my personal experience.

Let me start with one or two general propositions on the phenomena of absorption. I will not attempt a task beyond my powers, that of tracing the action of the several tissues and vessels in absorbing and carrying elements from without

into the system. I will content myself with affirming my belief that all the powers these structures are credited with are but examples of physical laws. Take one illustration from meteorology: When the air is saturated with moisture, as indicated by the dry and wet thermometers marking the same temperature, or by a bit of seaweed having absorbed the utmost amount of moisture it can take up. There we see one of the physiological forces under which the living body exists. This is the hygrometric state of the air, constantly varying in its relation to the body. Another force is that of atmospheric pressure, also varying, and yet in constant action. These conditions are both within certain limits under our command, and may be called in to the aid of the physician. Through this law of atmospheric pressure we may understand the phenomenon of hunger and thirst. Everyone knows what a vacuum in the stomach means. It is as true as the Torricellian vacuum. This is a fundamental condition of absorption.

Before going further I may state parenthetically that the art of modern hygiene consists in the application of the laws of physics to the preservation of health. The progress of medicine rests upon the right understanding and application of the same laws; and this study is only to be successfully pursued by the scientific observation of nature in her universal relations. If the day shall ever arrive when these laws of physics shall be universally recognised and applied to secure the good of mankind, we shall have attained that millennium when medicine, whose function, as long understood, was simply the art of curing diseases, or the accidents that afflict mankind, will have for its chief, if not only, function to prevent disease. The main obstacle we have to fight against is the prejudice that is born of ignorance, and that strives to perpetuate ignorance by erecting arbitrary barriers against the advance of knowledge through the observation of nature by experiment. In intimate and constant connexion with the processes of absorption and effusion under varying conditions of pressure, centripetal and centrifugal, we must not forget the influence of the law of diffusion of gases and liquids, and especially that of capillary attraction, which last is not immediately under the power of the heart and arteries. The two greatest masters of science to whose teachings I—and I may with just confidence add those who have come under my care as patients and students—I am most deeply indebted are Magendie and Marshall Hall. I name these two not because they stand alone, but because it was my especial good fortune to be their pupil. To Magendie I owe my first and enduring proof of that great truth which lies at the root of the theory of absorption. His experiments are quoted, or ought to be in every text-book of physiology. I allude to those in which having injected water into the veins of a dog, poison being administered subcutaneously, immediately before or soon after, it was found that the poison was absorbed and acted very slowly; whilst after bleeding it acted very quickly. An artificial thirst, acting like a vacuum, was created, attracting the poison rapidly into the circulating system. When I was a student in Paris bleeding was largely, no doubt empirically resorted to. Bouillaud especially I remember. His bleedings upon patients often exemplified the lessons taught by Magendie's experiments. I also remember that one of the physicians at St. George's Hospital when I was a student bled very freely. When I was an apprentice in the country the surgery was invaded every market-day in spring by farmers, who came to be "blooded." I have "blooded" four or five in a morning. Perhaps it did little good, but I do not know that it did them any harm. They soon made good the loss by absorption. They probably lost some more or less noxious elements, and certainly they were relieved of plethoric excess, and what they absorbed was, excepting perhaps too much brown stout, wholesome. In recent times bleeding has become obsolete, or nearly so. But we still have the instructive opportunity of witnessing the effects of what may be called physiological and accidental bleedings; and if the opportunities thus afforded be carefully observed by the light of Magendie's experiments we may witness similar proofs of the influence of depletion of the circulating fluid in promoting absorption. And now I may add that I have seen reason to regret that the lancet has been thrown out of the armamentarium of the physician. It is urged by the modern school that venesection is no longer useful because the constitution of mankind has altered. I will not contend that this argument or assertion is altogether unfounded; but of this I am convinced, by clinical and physiological observation—that in some cases the loss of blood artificially or spontaneously brought about is a potent factor in the cure of disease and in the recovery of the system under severe physiological trials.

Let me give an illustration from the history of pregnancy: and I take the opportunity of repeating what I have often insisted upon—namely, that the intelligent observation of the pregnant woman will reveal a series of vital and physical phenomena, equivalent in scientific value and as suggestive of useful practical application as many well-designed experiments. In fact, we may look upon pregnancy as a great physiological experiment. I will pass by the exalted nervous tension and other nervous phenomena induced—I made this the theme of my Croonian Lectures at the Royal College of Physicians—in order to fix attention more especially upon our actual text: absorption and some allied phenomena. During gestation there is a greatly increased formation of blood, tending to high vascular development and tension and even hypertrophy of the heart. There is what I have ventured to describe as extreme "physiological plethora." This condition is adverse to absorption. It is not indeed an absolute or trustworthy safeguard against zymosis, but I believe that it is to a certain extent protective. The predominant force of the circulation in pregnancy is constructive and excentric, disposing to exudation and hæmorrhage. Of course this work demands material for the construction, and therefore involves absorption. But still the preponderance of energy is from the centre to the periphery. The "physiological plethora" makes itself manifest in many ways. We not seldom witness hæmorrhages from the nose, the lungs, the stomach and the intestines. These hæmorrhages are evidence of the effort of nature to relieve the vascular tension. May we not say that they are significant indications to the physician? Can nature speak more plainly? She tells us to do what she is compelled to do—she bleeds. The difference is this. A physiological hæmorrhage once started is not easily arrested. It is too apt to run to excess, even to a fatal result, and this not only because the bleeding surface is not always under our control, so that we can stop the hæmorrhage at the right moment, but because the organ from which the bleeding proceeds will not tolerate the injury inflicted upon its structure. I well remember the case of the wife of a medical friend many years ago, who being three or four months pregnant and of plethoric habit, was seized with apoplexy from hæmorrhage in the brain. Abortion with hæmorrhage also set in, but too late to save her. Two reflections forced themselves upon my mind. The first was that a timely venesection might have saved her. The second was that had the abortion occurred earlier she might have been saved by this event—one usually regarded as a calamity. Experience has convinced me that abortion is often an example of the *vis medicatrix naturæ*. It is often a conservative process, acting in regulating the circulation, bringing down the excessive turgor within healthy physiological bounds. Is not the lesson obvious that the physician should on proper indications obey the teaching of nature and bleed betimes? In Italy not many years ago I observed that pregnancy alone was still a sufficient reason for bleeding. Of course this, as a common practice, is an irrational, even barbarous, submission to prejudice and custom; but we have now gone to the opposite extreme, which I venture to think is hardly less irrational. I have had reason to congratulate myself that in some threatening cases I have had the courage to bleed; and, on the other hand, I have seen reason to regret that this powerful and safe operation had been neglected. The sphygmograph and subjective symptoms indicating excessive vascular fulness and turgor will supply the indication. In some cases of eclampsia it has undoubtedly done good whilst waiting for the response to the means employed for the induction of labour.[1] The effect of loss of blood and of abstinence from food is similar. Almost as soon as the stream begins to flow there seems to be a transudation of watery fluid from the tissues into the current of blood; it is drawn in to fill the vacuum. To a certain extent purging may take the place of bleeding. As a mode of depletion its action is similar, but it is far less prompt and efficacious.

Now we come to labour at term. At the moment of labour all is changed. There is probably no experiment in nature or in the laboratory so full of instruction as that seen in the sudden revulsion which follows upon labour. The nervous tension at once falls; the need for the physiological plethora ceases. The first step taken towards the restoration of the

[1] In one case I gave the blood to Professor Bærnays to analyse He found in it urea and uric acid.

ordinary physiological equilibrium is marked by the loss of blood. The natural limit of this loss may be taken to be the discharge of that quantity which is in excess of what is required for the mother's need—that is, of the quantity which had been provided for the development of the embryo and of the maternal structures concerned in the process of childbearing. But the discharge of blood is really—to say nothing at present of extraordinary hæmorrhages—in excess of this. The loss is enough to cause at once what may be regarded as a degree of vacuum in the system; and the consequence of this is almost immediate. A process of active absorption at once sets in. The work to be done is one of demolition and of removal of the tissues, and fluids used in the process of construction now become superfluous. In the first place there is a large amount of fluid, serous chiefly, which had been effused in the broad ligaments and in the cellular tissue of the pelvis, and often throughout the cellular tissue of the body and limbs; this is taken up very quickly. Secondly, there is the excess of more or less solid matter in the uterine walls, in the specially developed bloodvessels and lymphatics and in the heart; this matter undergoes first a degree of fatty conversion and liquefaction. In the third place there sometimes occurs, unhappily, absorption of decomposing blood, of necrotic tissue resulting from the injuries sustained in labour, and of other noxious matter, chiefly from the uterus. This constitutes what I may call endogenetic toxæmia, or simple puerperal fever. This is enough without the absorption of poison from without. When this occurs there is the heterogenetic toxæmia added to the endogenetic. This view is, I believe, now generally accepted. Like the simple endogenetic form it is largely due to the increased activity of absorption caused by hæmorrhage; but there is one important point to remember in this association. It is that the poisons taken in from without include all the zymotic poisons, malaria of all kinds, the septic poisons from filth; and that when one of these is taken in it has to meet the endogenetic poison already in action or, if not in action, quickly brought on. We thus have a compound toxæmia, not always, I think, represented by the two original poisons, each acting in its own way; but probably a greater complication, resulting from the interactions of the two, generating a compound more dangerous than either of the two out of which it sprang. One observation I have often made which leads to this hypothesis is that in the case of a zymotic, as scarlet fever, the ordinary characters, as witnessed in the non-pregnant subject, are so changed or overriden that the simple zymotic is not always recognised. The same thing occurs with small-pox. It is when small-pox seizes the parturient woman that it is especially apt to take the hæmorrhagic character. There is a remarkable fact in this connexion as bearing on absorption. It has been observed by Braxton Hicks, by myself and by others that, although a woman may have been exposed for months continuously before labour, still the zymotic disease does not generally manifest itself till the third, fourth, or fifth day after labour. This suggests the question, Does the poison lie dormant until labour, when the arterial tension is lowered, and active absorption brings a rush of waste-matter into the blood; or does the plethora of pregnancy really act as a protection against the entry of the poison, warding it off?

Pardon me another digression. It was said—I believe by no less a man than John Hunter—that two poisons could hardly exist together in the same subject. "Haud bene conveniunt nec in una sede morantur." Many years ago I published a case in which it appeared to me that a child had absorbed the poisons of small-pox and scarlet fever. There was evidence that the patient had been exposed to both poisons, and then that small-pox had been communicated to one person and scarlet fever to another. Notwithstanding cases of this kind we cannot fail to recognise the truth of Hunter's aphorism as exemplified in puerperal history. No poison can exist in the same subject along with another, each maintaining unchanged its specific characters. If the one does not neutralise the other, they generate between them a third, endowed with increased virulence. Happy would it be for mankind if they would but destroy each other. We find something analogous in chemical reactions of inorganic substances. Two elements uniting produce a third unlike either of those of which it is composed. This liability in the puerperial condition to rapid absorption of poisonous matter, due in large measure to sudden loss of blood, creating comparative vacuum in the vascular system, supplies an argument in favour of transfusion of blood or of saline or nutrient fluids. Of course we have at our disposal the ordinary routes of absorption by stomach or intestine; but absorption cannot, we know, be always depended upon. It is too slow; it may be superseded by pouring what is wanted directly into the circulation. The effect of this is twofold. The immediate effect is to fill the vacuum—that is, to restore the equilibrium of pressure. This is essentially a physical result, for it is attained by the injection of fluid, as a saline solution, which can hardly be nutrient. The secondary effect is one not so generally recognised. The vascular system being renovated, the absorption of noxious stuff from the uterus and surrounding tissues is retarded, if not arrested; and thus time is gained for other antiseptic proceedings. Amongst the most valuable of these methods is the liberal supply of good food in a concentrated liquid form, admitting of easy absorption and assimilation. I am here delighted to express my indebtedness to an old friend and member of this Society, Dr. Oldham, who was one of the first to raise his voice against the old injurious rule of starving pueperal women.

Following the immediate revulsion of labour and puerpery we witness another interesting natural experiment in the course of lactation. The centre of activity of development and secretion is changed to the breasts. The action of the heart, at first lowered under the influence of hæmorrhage and the sudden revulsion from labour, soon rises again, and we witness the remarkable return of absorption and secretion. Here I am tempted again to cite a case from John Hunter. A man aged fifty had twins. The mother nursed the girl, he nursed the boy; and having begun this duty, he helped his wife in suckling eight succeeding children. The secretion held on long after he had ceased to suckle. He found that when he suckled the first child all his natural secretions were diminished, especially the sweat, to which he was much subject before.

Another cognate reflection arises in illustration—the specially remarkable absorptive energy in children. It is a fact so familiar as almost to require an apology for intruding it; it is that when epidemic specific fevers are raging the children are attacked in larger proportion than adults. This is generally attributed to the immunity conferred upon adults by the protection conferred by previous attacks. Certainly this is true to a great extent, but it is not the whole truth; the vastly greater activity of absorption and assimilation in children is overlooked. The stimulus of developmental craving in children is so intense that the system seizes upon almost everything that comes within its reach. In childhood we also know that medicines and poisons are more active; and, on the other hand, we know that as maturity and age advance, in proportion as the developmental necessity diminishes, the need of absorption is greatly limited to the simple maintenance of the body. We may also, I apprehend, add that this argument applies not alone to our physical, but to our mental, constitution. As age creeps on the faculty of absorbing new knowledge wanes. We fall back on the past.

Let me add a few more illustrations, drawn from special clinical observations, but yielding evidence of general truths. The skin is more active in elimination or excretion than in absorption; as an excretive organ we are all familiar with the proofs given by the odours it emits. It often gives evidence of morbid internal absorption, as in the case of retained fæcal and menstrual matter. To this I shall presently recur. As evidence of its absorptive capacity I may, however, mention that when a student at St. George's Hospital I saw severe vomiting follow a bath in which tartar emetic had been dissolved. With this personal observation I will pass over the subject of balneology and mineral waters. The familiar action of mercury by friction and of lead poisoning in painters may be cited, but I have seen cases that led me to believe that lead may enter by the lungs, carried perhaps by turpentine from living in rooms newly painted. I have known, as no doubt many of you also know, of cases of arsenical poisoning from inhaling the dust thrown off from arsenical wall paper; but in this case it is probable that some enters the stomach as well.

The absorptive capacity of serous membranes is well known. I will mention one example. A patient upon whom I had performed ovariotomy was poisoned by my assistant washing out the peritoneal cavity with an excessive quantity of carbolic acid solution. It seems superfluous to mention the absorptive capacity of the stomach and intestinal canal. This may be called the absorptive tract or route *par excellence*. I mention it simply for the purpose of calling attention to the tale it sometimes tells of arrested or obstructed eliminations by the natural routes. The history of obstructed evacuation or elimination is full of interest. Let any natural door of exit be closed and the imme-

diate effect is that waste stuff, the retention of which in the system is injurious, is liable to be reabsorbed under the influence of pressure turned inwards. We see continual examples of this in practice. There is the too familiar one of retention of fæces, especially apt to affect girls and women. A retrograde absorption takes place, leading to a peculiar form of anæmia, sometimes to amenorrhœa. This has been worked out by Sir Andrew Clark. I have described it as a form of toxæmia, to which I gave the name "copræmia."

There are two conditions favouring absorption: (1) Comparative thirst for suction inwards; (2) obstruction at the natural outlets for evacuation. We have seen how these two conditions act in producing copræmia, urinæmia, cholæmia. Let me now give you another example replete with practical lessons. When there is mechanical obstruction to the discharge of menstrual fluid there is a retrograde absorption. This is seen in the most striking manner in cases of complete occlusion of the uterus. In these cases the serum, or more fluid elements of the blood, is absorbed back, leaving the remaining portion in a state of coagulation or liquid inspissation. This leads to a peculiar form of toxæmia. This absorption is, however, to a certain extent conservative. If it did not take place the uterus might burst, and rapid death ensue. This actually does take place in some cases of tubal ectopic gestation. When the obstruction is not complete, we meet with similar phenomena taking a chronic course and perhaps presenting intervals of recovery. This is obstructive dysmenorrhœa. I almost hesitate to trouble you with this very obvious reference; but there are men who have studied the question and deny the inference. The two forms of mechanical obstruction with which we are most familiar are the narrowing of the os externum uteri and the flexion of the cervix. When dysmenorrhœa and menstrual retention are pronounced, one or other or both of those conditions will probably be found; but some men contend that where a sound can pass, menstrual fluid can pass. Two facts dispose of this objection. First, during the turgor of menstruation the canal may become smaller by the approximation of its walls. Secondly, enlarging the opening by incision and dilatation rarely fails to give relief. Then, as to flexion, there are men who contend that fluid can flow as easily along a bent canal as a straight one, the two being of equal calibre. This is not far from true in the case of rigid metal tubes so bent that they maintain an equal calibre throughout their course; but take a living flexible tube and bend it in a strong curve, the calibre will hardly preserve uniformity throughout, and the elbow formed will certainly retard the onward flow. Again, let anyone watch the course of a stream and measure, as I have taken the trouble to do, its rate of current when the channel keeps a straight course and when it takes to meandering. In the latter case the current is not only slowed, but at every bend there is a return current or eddy which further hinders its course. Then, again, there is the clinical proof of relief following upon straightening the cervix. And this mechanical relief is soon followed by cessation of the retrograde absorption.

I said at the beginning of this lecture that almost every surface and tissue may be used as a route for the entry of nutrient and noxious matters, and I stated the correlative fact that the same routes may be used to chase noxious matter through the system. The first indication, of course, is to stop the entry of more poison; the next is to eject it; the third is, if we cannot drive it out, to neutralise or destroy it or counteract its action. Amongst the most familiar means of effecting this last indication are intravenous and subcutaneous injections; but I am anxious to mention another. The absorptive capacity of the uterus we have already seen in the case of obstructive dysmenorrhœa. I have often turned this to account by injecting solutions of iodine in septicæmic puerperal fever. The poison is thus chased through the system, and, I believe, neutralised. That iodine so injected permeates the entire organism I have often proved. It is detected by the starch test in the saliva and in the sweat. This is an example of the forces of endosmosis and of capillary attraction. Certainly the entry is not made by the veins or lymphatics alone or even chiefly. There is one undeniable proof that the iodine permeates every part of the uterus. In cases of hyperplasia, and even of fibro-myoma of the uterus, I have seen the superabundant and neoplastic tissues completely absorbed under the action of repeated injections. We may surely see in these cases telling illustrations of the good we may achieve by turning to account the absorptive energies of the system.

Here let me intrude one or two general propositions. The true principle that should govern the physician is to interrogate all the functions, not only objectively, but also subjectively. In this way we may hope to arrive at a knowledge not only of symptoms and their true significance, but also of the physical conditions of the organs upon whose actions the symptoms depend. And thus we are directed to the true treatment not alone of symptoms—that is, the empirical medicine which has so long prevailed—but also to the direct treatment of causes which distinguishes the rational surgical medicine of the present day. Admitting, as we all must, the truly admirable and magnificent results of surgical treatment of diseases of the nervous centres achieved by Macewen and Horsley, we cannot shut our eyes to the fact that the greatest advances in our knowledge of the pathology and treatment of abdominal and pelvic diseases are due to surgical gynæcology. Indeed, gynæcology is nothing if not surgical. Looking at these things, we cannot help seeing that the immediate objective observation of organs whose functions are deranged leads not only to the direct treatment which takes away the disease; but that it also leads to such knowledge of the nature and properties of those organs that we may use them as media for the treatment of diseases in other organs or in the system at large. Thus the absorptive faculty of the uterus may be turned to account as a means of carrying remedial agents into the system, and so of encountering morbid germs, bacteria or other, wherever they may be. There is no agent known to me so generally powerful in this way as iodine, and we have seen that there is nothing more easy than to send iodine into every fibre, every cell of the body through the uterus. How to deal with cancer is an ever-painful problem. We may sometimes think we extirpate a cancerous growth by the knife or cautery; but we all know too well how little faith we are justified in giving to strictly local treatment. The malignant germ has seized upon internal tissues beyond the reach of the knife; but it may be chased into the remotest cell through the medium of absorption, and so kept continuously under counteracting influences.

And now I am afraid your faculty of absorption must be exhausted, and I must bring this discursive discourse to an end. I wish I could have thought out something less unworthy of association with the memory of the great physiologist whose name is the standard we bear.

Lecture
ON
ANATOMY AS A SCIENCE AND IN RELATION TO MEDICAL STUDY.

Delivered at the Opening of the Medical Session in the University of Glasgow, Oct. 18th, 1892,

BY JOHN CLELAND, M.D., L.R.C.S. EDIN. &c.,
PROFESSOR OF ANATOMY AT THE UNIVERSITY.

GENTLEMEN,—The present is a period of change in our university. Possibly this may be the last occasion on which our medical session will be arranged to open apart from the commencement of the classes in the other faculties. We trust that all changes of legislation and custom in the university will be for the better, and that if any of a contrary tendency be imposed, at least honest and earnest work may be able to triumph over them. But there are other changes from which no institution is exempt. Students and professors alike are floated onward on the stream of time, and since last we met an unanticipated blow has fallen in the sudden removal from us of one whose happy smile and commanding figure will long be remembered, but will never again greet the eye. Of the skilful hand and kindly nature of Sir George Macleod it is not necessary that I should speak. They were well known to all his students. His sorrowing relatives and friends have the consolation that it can be said of him, as it can be proudly said of every great surgeon, that he lengthened the lives of many of his fellow men ere called himself to quit this earthly scene. But as convener of the successive committees appointed by the Senate in connexion with the University Union since the movement to originate it began, I may be permitted to call to mind the willing and important services which he whom we lament has rendered to that

institution. Nor was it at its commencement only that he gave his assistance; he continued to devote to its well-being an unremitting attention which he allowed no professional engagements to interfere with, and even so late as a few months ago he took occasion to express in writing his view of the duty devolving on the Senate to guard against the intrusion of aught which might impair its usefulness in furthering those student interests which a university ought to promote. In the Union you will remember your loved teacher as well as in your studies, and preserve that best of clubs as a centre of moral health and of earnest endeavour.

We are entering on a new era of medical tuition in this country. In accordance with recommendations made by the General Medical Council for the purpose of giving additional time for clinical study the Scottish University Commissioners have ordained that our curriculum shall henceforward extend over five years. It is a long period, but at least the universities recognise that for their students it is not too long. Even the beginners among you can already understand that to enable the humblest professional position to be occupied intelligently a foundation must be laid in a certain acquaintance with the elementary methods and principal results of the sciences on which medicine is based, and that time is required both for this purpose and to superimpose on such a foundation a rational appreciation of the present doctrines and practice of the healing art—an art which, however far it may fall short as yet in its endeavour to give to man the longest and healthiest possible life and smooth the passage to inevitable death, has made strides within the recollection of its present teachers almost incredible in variety and extent. It is, moreover, well that at the outset of your studies you should bear distinctly in mind that there is a difference between the objects to be held in view by a university bestowing degrees and a corporation or combination of corporations granting the licence to practise. It is required of the corporations to see that they license no one who is not, so far as education is concerned, fit to be trusted with the care of health and the treatment of the sick; and the universities have the same responsibility thrown on them, but with this addition: that, being the chartered guardians of the higher education of the country, it is their duty not to be content that their graduates have information up to the standard reasonably to be exacted for the safety of the public, but to demand such a course of study as shall enable those who pursue it with intelligence to examine critically the foundations of medical doctrine. It is much to know the various disturbances of health and the lesions to which the body is liable, to recognise them when met with, and to apply the remedies which the experience of others has found beneficial; but it is much more to follow out the causation of both symptoms and remedies so far as science has been able to trace them; and to do this requires a wider knowledge of the operations of nature and of the properties of substances both within the human body and in the world around. Still more special study in some particular direction will be necessary to enable you to wield with success the methods of science against the fortresses of the unknown; and not only more special study, but certain aptitudes and habits of mind, not often found in the successful practitioner, will be required, and different both from the dexterity of the born surgeon and the clinical tact of the accomplished physician. Such aptitudes and such additional study we have no right to expect from the general body of our graduates, and if we did we should not get them. It has not occurred to even the most absurd of hostile critics to demand that our medical graduates should all be men of science. Not only do I maintain that the public is entitled to expect that every graduate should have had ample opportunity of becoming acquainted with the sciences on which medicine is founded, and should have been taught to look at the details of practice in relation to these, but I would point out that the theory which has been held in the Scotch universities and raised their medical schools to note, when commissions and medical councils were unknown, is that every medical graduate should, to some extent, have systematically studied as a distinct branch of learning each of the sciences on which medicine immediately depends, and that within the walls of the university the standard of teaching in each should be maintained as high as possible. As long as this theory is held, and not one moment longer, will the faculties of medicine continue to give strength to our Scottish universities and defy the sneers of detractors. It is the merest puerility to suggest that professorial work is to be limited and pruned down to preparing students for a pass examination.

So far as the subject is concerned which is specially committed to my care, recent legislation makes little change. Anatomy will naturally be attended with chemistry in the first winter and with physiology in the second, as heretofore. The student is to be admitted to examination in the whole subject of anatomy at the end of the third winter session, the same period as that at which hitherto he has been examined in regional anatomy. But it has been considered, not incorrectly, that until then he should continue to give attention to physiological anatomy as well. The new ordinances save the student from the temptation to leave off his physiological studies immediately after attending the course of lectures on that subject, and before he has had time to master the relation of the more recondite anatomical details of function, and they leave undisturbed the opportunity of continuing the pursuit of practical anatomy in the third winter, when there is some possibility of appreciating its bearing on surgery and medicine.

The position which anatomy holds in medical education is remarkable. Assisted by chemistry and physics it forms the basis of physiology, disclosing the construction of the machine whose healthy operations physiology describes; it furnishes also the starting point of all accurate pathology, whether we regard the larger changes produced by disease or the microscopic elements out of which these are wrought; while the explicit and, to a certain extent, irksome details of its topography furnish the means of explicit diagnosis to the physician, and enable the surgeon to perform operations which without them would be impossible. These are the aspects in which anatomy is more immediately useful to medicine, and in the first of them—its connexion with physiology—it puts forward a fair claim to have an elementary knowledge of it included in general education as well. It would be a happy thing for the world if every father and every mother had some notion of physiology, and took care that their teachings and doings were in conformity with the laws of life; and, as regards higher education, it might surely be by this time apparent that some knowledge of the relation of the mind to the walls and windows of its present abode is a necessary preliminary to a correct psychology. Still all this gives no adequate idea of the scope of anatomy as a science; and seeing that the other sciences with which you are brought in contact as medical students stand in the same position, in having spheres of their own which only intersect the sphere of medicine and yet ought to be justly conceived of though not all subjugated by the medical student, I shall offer a few remarks on what anatomy really embraces. The name is misleading; it only describes a method, and that method one which in the minds of the uninitiated, even those who have been subjected to the narrow course of training supposed to constitute culture, calls up repulsive and sometimes superstitious ideas; and although everyone admits that the objects to be laid bare by that method are the details of the most complex organism that exists, this but awakens the antipathy of the lazy, while it seems never to be suspected that those details are subject to law, and result from the operation of causes, and that these also it is the business of the anatomist to discover. But when we consider how long the higher aspirations of the science have taken to germinate in the minds of those who have pursued it we learn to understand very well how the word "anatomy" came into use.

Modern anatomy is justly enough said to date from Andreas Vesalius, born in Brussels in 1514, who may be held to have originated the accurate observation and description of a large part of the body. But it must be remembered, on the one hand, that not till a later period was the whole face of the study changed by Harvey's discovery of the circulation of the blood and by the gradual growth of microscopic methods paving the way for a more rational comprehension of the objects displayed; and, on the other hand, it is not to be forgotten that the ill-satisfied longings after a knowledge of structure go back, not merely to Sylvius, the teacher of Vesalius, and to Mundinus, Paduan professor and manual-writer of the fourteenth century, but far into antiquity, to the writers whom Mundinus consulted, to Galen specially and to Aristotle, and even to Hippocrates. The crude beginnings had their origin partly in a professional desire to advance medicine, partly in the scientific ardour of speculative philosophy; but it was long before the objects laid bare by maceration and by the scalpel awoke any other thought than that of function; and thus anatomy was nothing more than such methods as the name expresses used for advancing physiology. Even Galen's work, so long authoritative, professed to be devoted to the use of the parts of the body.

(To be concluded.)

THE THERAPEUTICS OF CHOLERA.

BY SIR GEORGE JOHNSON, M.D. LOND., F.R.S.,
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IN THE LANCET of Oct. 8th there is an editorial article on the "Therapeutics of Cholera," in which such frequent reference is made to me, my doctrines and my practice that I am induced to ask permission to comment upon some of the statements contained therein. The writer declares that Sir Thomas Watson in 1866 was induced to recommend the evacuant treatment of cholera "solely under the spell of his able colleague's influence," the colleague thus referred to being myself. That one of the wisest and most cautious of men, at a time when, as President of the Royal College of Physicians, he was officially at the head of the medical profession in this country, should have adopted and published a new doctrine with regard to the pathology and treatment of cholera without evidence which to his powerful and logical mind appeared conclusive is a suggestion so incredible as to require no serious refutation. The history of Sir Thomas Watson's "conversion" is simple enough. During the epidemic of cholera in 1849 I had witnessed the deleterious effects of the treatment of cholera by opium. During the next epidemic, in 1854, I ventured to give castor oil, with the result that, while in a large proportion of cases patients were rescued from extreme collapse, not one out of a large number of cases of diarrhœa so treated passed into collapse. From that time I felt assured that the theory which suggests the indiscriminate employment of opium to arrest choleraic diarrhœa must be erroneous, and that the discharges from the stomach and bowels, although they may, like the eruption of small-pox, be so copious as to kill, are yet the means by which the morbid poison is ejected from the system. Death may take place without discharges: recovery never.

Now what is the history of the theory which attributes the worst symptoms of cholera to the drain of water from the system? There is no trace of it or of the practice which it suggests in the writings of the earlier Indian practitioners. Before I published my book on "Epidemic Diarrhœa and Cholera" in 1855, I had carefully read most of the reports and books on cholera which had been published by practitioners in India before the disease appeared in Europe in 1831-32, and in not one of them did I find the slightest indication that opium was given to arrest the choleraic discharges. Opium was given to relieve the painful cramps, while at the same time purgatives, and sometimes drastic purgatives, were taken to remove the morbid secretions. The loss-of-water theory and the repressive treatment suggested by it had their origin sixty years ago when cholera first invaded Europe. This theory and practice soon gained almost universal acceptance, and one result has been that the percentage of deaths from cholera in India has been much greater than formerly. Thus Dr. Edmund Parkes, in his "Researches on the Pathology of the Asiatic or Algide Cholera," says (p. 195): "I cannot account for the astonishing success which attended the practice of several gentlemen in the earlier periods in India." He, however, thinks that the epidemics he witnessed were above the ordinary degree of severity and the mortality was proportionately great. It does not appear to have occurred to Dr. Parkes that his comparatively unfavourable results might be due to the different operation of purgatives given to remove offensive secretions and opiates given with the object of preventing their escape, the latter having been his own practice. I had observed the unfavourable results of the repressive treatment of cholera by opium and other astringents, and the comparative success of the opposite or eliminative treatment of the disease before I had formed any theory as to the nature of the disease. After a careful study of all the phenomena of cholera I arrived at the conclusion that the essential cause of choleraic collapse is obstruction of the circulation through the lungs—a result of the contraction of the pulmonary arterioles excited by the poisoned blood—and that the gastro-intestinal discharges are the means by which the poison is eliminated. This theory, which I first published in the work before mentioned in 1855, also in a smaller work entitled "Notes on Cholera" in 1866, and with much additional corroborative evidence in the chapter on Cholera in my "Medical Lectures and Essays" in 1887, was accepted by Sir Thomas Watson and by many other competent authorities as affording a complete explanation of all the phenomena of the disease. Sir Thomas Watson says: "It is consistent with the symptoms noticed during life and with the conditions discovered after death. In truth it derives strong confirmation from the fact that it unlocks, like the right key, the whole of the pathological intricacies of the disease." Again, he says: "If the doctrines advanced by Dr. Johnson are well founded, as I firmly believe them to be, it must be wrong to dam the choleraic poison and its products within the body."

This, then, is the explanation of Sir Thomas Watson's acceptance of my theory and treatment of cholera. And surely a man in his position is to be highly commended for having the courage to publicly proclaim the fact that he had seen reason to change the opinion which he had formerly held and taught with regard to so important a subject. We know how eloquently, in his introductory lecture, he has expressed his deep sense of the grave responsibility of a public teacher. He says: "Doctrines and maxims, good or bad, flow abroad from a public teacher as from a fountain, and his faulty lessons may become the indirect source of unspeakable mischief and suffering to hundreds who have never even heard his name. These thoughts fill my mind with an almost painful sense of the obligation, imposed upon me by my present office, of closely sifting the facts and meditating carefully the precepts which I offer for your instruction and guidance." I venture to say that if all the men in high position in the profession who have privately expressed to me their entire assent to my theory of cholera and the practice deducible therefrom had, like Sir Thomas Watson, the courage to publish their opinions, there would no longer exist that conflict of opinion which at present prevails and which is a continual reproach to the profession.

It is alleged that Sir Thomas Watson had no personal experience of the evacuant treatment of cholera. In reply to this it may be observed that he had too much good sense and freedom from prejudice not to avail himself of the personal experience of others. He had read the reports of the numerous cases which I had published in detail and he refers to the still more numerous cases published by Drs. McCloy and Robertson in their very able and elaborate paper in the fiftieth volume of the "Medico-Chirurgical Transactions." In his lecture on cholera he makes repeated reference to "this most instructive communication." In their paper it is shown that 375 cases of cholera were admitted into the Liverpool parish infirmary in 1866. Of these cases ninety-one were treated with astringents and stimulants, camphor and iced water, applications of ice and hypodermic (opiate) injections, and the mortality per cent. was 71·42. Eighty-seven cases were treated with castor oil, with liberal use of food and alcohol, the mortality being 41·37 per cent. The authors express their belief that food and alcohol given during collapse were injurious and to some extent counteracted the good effect of the evacuant treatment. One hundred and ninety-seven cases were treated by castor oil alone, with a mortality of 30·45 per cent.

With regard to diarrhœa, they say, "Our experience was very extensive. Several thousand cases came under our observation in the different dispensaries connected with the West Derby Union and in the Liverpool Parish Infirmary. Among these were doubtless many which would have recovered under any mode of treatment, or by the *vis medicatrix naturæ* alone. There were many, too, of a most severe choleraic type. The treatment adopted was generally evacuant in its nature; and consisted in the administration of castor oil, calomel, rhubarb or magnesia. In every case relief was afforded 'quickly, pleasantly and safely.' It was but seldom that more than two or three doses of castor oil were required. In one of the public dispensaries (Bootle) many cases of diarrhœa were treated with evacuants, and the testimony of the medical officers is in accordance with our own. 'We certainly had less trouble with the evacuant mode of treatment. Our patients seldom gave us a third visit, two doses of castor oil or rhubarb mixture being generally sufficient to cure the disease.' We never saw a diarrhœa patient treated from the commencement of his attack require subsequent removal to hospital. In a large proportion of our cases there was premonitory diarrhœa, which had been treated—often for four or five days—with astringents. Diarrhœa patients undoubtedly recover when treated with astringents, but the recovery is not consequent upon the arrest of the discharges as these are invariably restored

before the patient feels well." The authors state emphatically that "Whatever the treatment adopted the result was the same—recovery never occurred without the continuance of the intestinal discharges or their restoration if previously arrested."

In THE LANCET of Aug. 18th, 1866, p. 184, there is a report of 201 cases of diarrhœa successfully treated at the Bloomsbury Dispensary, mostly by evacuants; a pill of half a grain of calomel with three grains of rhubarb, followed in two hours by half an ounce of castor oil. If next day the purging continued a slightly astringent mixture was given, "but this was necessary in only a small number of cases." All the patients recovered, and the report states that a considerable number of them had been previously treated at other institutions unsuccessfully by astringents. "One man had been ill for a week, taking astringents the whole time; after the above treatment he went to work the next day quite well." Twenty-two of the cases were treated with coloured mint water, of whom two only returned for further treatment. I challenge the advocates of the repressive treatment of choleraic diarrhœa by opium and astringents to produce evidence in support of their theory and practice as conclusive as that which I have given in favour of elimination. The fact is that practitioners who are "under the spell" of an erroneous theory have had no experience of the evacuant treatment which they condemn on theoretical grounds alone. I have elsewhere quoted from MM. Briquet and Mignot the result of their treatment of diarrhœa by opium. Of 200 patients who came under treatment at the commencement of the attack, no fewer than 26, or 13 per cent., passed into collapse. This is a striking contrast with the many thousand cases of diarrhœa successfully treated by Drs. McCloy and Robertson. The result of the administration of opium by the mouth would be more frequently and decidedly injurious than it is were it not for the fact that the outward flux of liquid from the blood impedes the absorption of the drug, and the diarrhœa continues in spite of repeated doses of opium for a period varying from a few hours to several days. In such cases the curative efforts of nature eject the morbid poison from the blood and bowel, together with the drug, by which an attempt is made to arrest the elimination. It is now well known that Dr. Koch failed to produce cholera in guinea-pigs by introducing the poison into the stomach, unless at the same time he injected into the peritoneal cavity a dose of tincture of opium; his object being "to render it possible for the cholera bacillus to remain longer and gain a footing in the intestine." Is it not obvious that those who endeavour to arrest the choleraic discharges by opium, especially by hypodermic injections, are repeating upon the human subject the lethal experiments which Koch and others have performed upon guinea-pigs? I have reason to believe that the majority of the profession know little more of my work in connexion with cholera than that I have treated it with castor oil. They are led to suppose that I *always* give castor oil and *never* opium; the fact being that, in my detailed directions for the treatment of diarrhœa, I indicate that while there are some cases in which there is no need to give castor oil or other laxatives—the object and effect of which is, not to increase the secretion from the blood, but to quicken the expulsion of morbid materials from the bowel—on the other hand there are many cases in which, after the expulsion of the poison, opium may be usefully given to allay irritation. It is surely not too much to expect that those who publicly criticise my practice should do me and the public the justice to ascertain what that practice actually is, even if they have not the time, opportunity and inclination to make themselves acquainted with the facts and arguments upon which is based my explanation of choleraic collapse.

The influence of an erroneous theory upon the treatment of cholera affords a melancholy illustration of the truth of the following statement by Buckle: "There is no well-attested case on record of any theory having been abandoned because it produced dangerous results. As long as a theory is believed men will ascribe its evil consequences to any cause except the right one; and a theory which is once established will always be believed until there is some change of knowledge which shakes its foundation. Every practical change may, by careful analysis, be shown to depend, in the first instance, on some change of speculative opinions."[1] A change of speculative opinion with regard to the pathology of cholera it has been my endeavour during the last thirty-eight years to bring about, and I am confident that the time will come when it will be generally acknowledged that my efforts have been in the right direction and that their object has been attained.

Savile-row, W.

[1] History of Civilisation in England, vol. ii., p. 545.

SOME PRACTICAL DIFFICULTIES ARISING IN THE DIAGNOSIS OF PHTHISIS PULMONALIS.[1]

BY W. S. LAZARUS-BARLOW, M.B.CAMB., M.R.C.P.

THE importance of a correct diagnosis in this the most common of the serious diseases which the profession is called upon to treat is so great that it may not be amiss to consider all some of the practical difficulties which lie in the path of medical men. I do not propose on this occasion to touch at upon the treatment of these unfortunate patients. I leave that in abler hands than mine; but the value, if there be any, in the following remarks, arises from the fact that all of the difficulties I mention have arisen to myself even in my short experience.

If a patient come to a medical man with a history of having lost two stones in weight during four or five months, if he say that he had brought up a pint of frothy blood, that he sweated copiously at night, that he had a distressing cough and expectorated much thick, yellowish mucus, and that a near relative had died of phthisis, the fears of the medical man are naturally aroused. If on examination dulness be found over one or both upper lobes of the lung, extending downwards perhaps to the third rib or lower, with tubular, cavernous or amphoric breathing associated with many moist fairly large sounds, with increased vocal fremitus and vocal resonance, increased in the case of resonance to bronchophony or pectoriloquy, his fears are realised. The patient is suffering from phthisis and probably from very actively advancing phthisis. But such is not usually the form in which the disease is seen for the first time, and particularly it is not the form in which the general practitioner sees it for the first time. It is rather in one of the other two stages, the earliest or the later stage, though doubtless in a special hospital the typical form is seen only too often. Here I should like to mention the way in which I propose to regard the stages of phthisis. I shall speak (1) of incipient, (2) of advancing, and (3) of receding phthisis. This will eliminate the difficulty which otherwise arises from the use of the stages as (1) the stage in which tubercle is laid down, (2) the stage of excavation, and (3) the vomica condition, with the attendant paradoxes that the "last stage" of phthisis may be the most favourable to the patient and the "first stage" the most dangerous. This division seems to me to be more nearly allied to the course of the disease and to afford a better explanation of the rarity of cures, as it brings so large a number of cases under the head of advancing phthisis. For the incipient stage is usually an advancing one, and while receding above the disease may be advancing below in the lung. But it is also useful as that upon which a prognosis can be most safely based, for the whole question of prognosis depends on whether, in a patient suffering from phthisis, the disease, as a whole, is advancing or is receding in activity. As the incipient stage not only comes first in order of time, but also in order of importance and of difficulty, we will discuss the difficulties then arising in the diagnosis. The second or true advancing stage, where the disease, having once taken hold of the patient, proceeds by more or less rapid strides, I do not propose to enlarge upon, as it is by far the most easy of diagnosis, cases differing but little, and that chiefly in degree, from the typical case mentioned above. In the first place, then, it is important to recognise that in the very early incipient stage a patient may not—and, indeed, is very likely not to—have any symptoms that lead to a suspicion of lung mischief. He is run down, has perhaps some dyspepsia with nausea, and probably this dyspepsia is obstinate; he is tired and languid and seems to require merely judicious diet, tonic medicine and perhaps a sea trip. Now this train of symptoms is very common and particularly so in young women. It is very common too in early summer, after the strain of winter and spring; but it is just at this season of the year that incipient phthisis is particularly likely

[1] A paper read at the North London Medical and Chirurgical Society, Jan. 14th, 1892.

to begin. I wish to enforce the necessity of not allowing such a patient to leave the consulting-room without an extremely careful examination of the apices of her lungs. Many times, no doubt, we shall find that our suspicions have not been verified; but I am confident that the earliest signs of phthisis are to be found in cases of this kind rather than in any other. Cough, expectoration, hurried breathing, perspiration and hæmoptysis are conspicuous by their absence; but a careful examination may reveal a little dulness in the supra-scapular fossa, a slight roughness, harshness or waviness of breathing, particularly in expiration, perhaps a few clicks, not cleared up by deep inspiration or cough, and we shall congratulate ourselves on having avoided that greatest of errors—the overlooking of the prime cause in the prominence of extraneous symptoms. I need not say that the importance of careful examination in such cases is essential to the advantageous employment of climatic treatment, and in no stage of phthisis is climatic treatment more advantageous. Perhaps we may not have time to examine for bacilli, but if we do we may be rewarded for our pains. I have notes of one case that occurred when I was house physician at the Brompton Hospital which illustrates this point very forcibly. The patient, a young girl of nineteen, had absolutely nothing the matter with her but some persistent dyspepsia, and to get sputum for examination it was necessary to make her cough. There was even then expectorated a little watery mucus alone, nothing similar to the ordinary phthisical sputum; but bacilli were present in large numbers, and within the three months of her stay signs appeared in the left apex. The fact that bacilli were discovered within the first week after her admission negatives the possibility of her having contracted the disease within the hospital.

We may now advance a little further. We have in early spring, or perhaps even in summer, a patient who has persistent slight cough, with slight glairy expectoration, which has lasted through the winter and has got a little worse; perhaps some lassitude and maybe a phthisical family history. Is the patient the subject of incipient phthisis? To my mind this all-important question is most difficult to solve. Many persons show a liability to cold and their catarrhs go on to a bronchial catarrh. It is particularly in the upper lobes that this bronchial catarrh is likely to persist for some time, and it is especially under the conditions of a prolonged bronchial catarrh that tubercle is likely to be deposited. How are we to determine whether the patient is suffering from a mere bronchial catarrh or from early phthisis? Frankly I confess that I cannot do so with certainty; nothing but time will show with absolute certainty. But there are some indications that may give one or other of these diagnoses more probability. In such a case it is of especial importance that the bodily temperature be taken regularly, and not only night and morning, when it will very likely prove to be normal, but especially in the middle of the afternoon. If the temperature rises in the afternoon from 2 to 5, but is not elevated above the normal night temperature in the evening, or only slightly, I believe the probabilities are greatly in favour of the tuberculous condition. Next we should notice the effect of causing the patient to cough while we are auscultating. The long inspiration following the expiratory effort of coughing will very possibly clear up to a large extent the sticky râles, or the clicks, which in such a patient are heard during ordinary breathing. If after repeated cough with subsequent deep inspiration, and after several auscultations, these clicks remain, the probability of phthisis is increased. Then there is help in the question as to whether the conditions of the two lungs are similar. If there is no dulness, if the moist sounds may be heard equally low on both sides, if the degree to which they are heard varies from one day to another, and if an occasional click may be heard at the bases, then the probability is in favour of bronchial catarrh. If the sounds are not heard equally low, and particularly if the left apex be more involved, there is increased fear of the condition being phthisis. The question of time will usually clear up the difficulties in these cases, and it is important not to let a patient who has had this condition in early summer enter upon the next winter without carefully arriving at a definite conclusion as to the actual condition of the chest. If, when the patient is examined in autumn, nothing is found, the mystery has solved itself; if the same condition remains or has advanced the probability is vastly increased that he is suffering from slowly advancing early phthisis, and by this time other symptoms will probably have supervened, converting the diagnosis from a comparatively doubtful to a comparatively certain one. Nevertheless, I do not ignore the fact that a bronchial catarrh may creep on. At any rate, if we thus exercise caution and take pains over the diagnosis we shall have nothing to reproach ourselves with in case the more serious condition ultimately manifests itself. We shall in the meantime have given the patient the best chance of escaping that tuberculous disease, and shall have put him under those conditions which militate most against its rapid advance. Such considerations are amply sufficient to compensate us for the extra trouble we have taken in arriving at a diagnosis.

We now come to a very different class of case, one in which the diagnosis is no less difficult, but which cannot alter our treatment to any considerable extent, though the prognosis may be materially modified. An example of this class is very vividly before my mind, as it was one of the cases given me in my examination by the Censors' Board of the College of Physicians. I will briefly run over the chief points. A man in the prime of life was admitted to hospital with acute pneumonia; the case never had a definite crisis, but went on for about two months, at the end of which his condition was as follows: Dulness, with all the signs of fluid in the lower axilla and at the base on the right side, with a few crepitations throughout the lung; temperature irregularly raised, pulse rapid and copious perspirations. It was evident that pleural effusion had been added to the pneumonia, but the question was whether tuberculous mischief was not, after all, underlying the whole. Now the effusion at the right base raised the tone on percussion of the upper lobe, though it was by no means of the Skoda type, and thus abolished a means of comparison with the left upper lobe. The onset of the pleurisy was definite, with rigor and pain. But the onset of a tuberculous pleurisy is most commonly insidious and pain is not a marked symptom. The condition of the patient was quite explicable on either of three hypotheses: (1) unresolved pneumonia, (2) empyema, and (3) phthisis being laid down on an unresolved pneumonia. There was no tuberculous family history, and yet the man looked of a tuberculous diathesis and his fingerends were clubbed. He had had no previous illness, no history whatever of cough or wasting; he expectorated much frothy mucus. And yet, in spite of all, there was in my own mind, from the first no doubt—and I may add that the Censor examining also fully concurred in my view—that the case was tuberculous at bottom. Upon what could that diagnosis be upheld in the face of so many contradictory signs? In the first place, there was some harsh breathing at the left apex, and this side was duller on percussion than the right, though I admit the abnormal condition of the right lung gave no satisfactory standard of comparison. Then, next, the fingerends were clubbed. I do not know how long it takes for obstruction to the pulmonary blood-supply to exist before clubbing is present, but it appeared to me that two months was long enough. Thirdly, the peculiar hopefulness of phthisical patients was present here, and this, with the transparent skin and pearly sclerotic, together with the fact that now, two months after admission, his lung condition was not cleared up, but actually more obscure than ever, led me to the conclusion that phthisis was the disease which would later on, by rapid strides, infiltrate and perhaps excavate the lungs on both sides, but particularly the right; in short, that tubercles were being laid down throughout the area of an unresolved pneumonia. Here was a case where discovery of the bacillus would have been of inestimable advantage to the diagnosis; but I was assured that examinations of the sputum had been repeatedly made without success.

Closely allied to the above case are those somewhat rare cases of apical pneumonia. They occur more frequently in children, are accompanied with much more pronounced symptoms, and are long in resolving. One must not forget that though tubercle going on to excavation is far less common amongst young children than amongst adolescents and adults, yet that it is not unfrequently met with. If in a case of apical pneumonia in a strumous child we can get but a very poor history of onset, I do not myself see, unless delirium be marked, how we can differentiate the two diseases. Dulness, tubular breathing, bronchophony, and even pectoriloquy, are present in both, and the onset of phthisis in children is often so rapid that the mode of onset in any particular case may help us but little. I think here in many cases, though we must recognise the condition as extremely severe, we are unable to give a definite diagnosis. The case is different from broncho-pneumonia in children; moist sounds and dulness are very widespread, but they are

not as a rule confined to the apex, being heard in patches all over the chest on both sides, and particularly below the angle of the scapulæ. In children cases of broncho-pneumonia ought not usually to cause any difficulty. But it is different in adults. When broncho-pneumonia is present it may lead to a condition very similar to that occurring in basal phthisis. True phthisical cavities also rarely occur at the bases of the lung, and may be confounded with bronchiectatic cavities. A diagnosis may usually be effected by considering other symptoms—such as the deteriorated condition of health dependent upon some long-standing acute illness which has exhausted the vital forces, leading to broncho-pneumonia and the peculiar mode of expectoration with the characteristic odour of the sputum in bronchiectasis. In a short time influenza, leaving broncho-pneumonia, may further increase our difficulties in diagnosis. With regard to morbid growths in the lungs I can speak with less confidence, as I have met with but few, and those such in which the diagnosis was not difficult, and in any case not to be confounded with phthisis. Primary growths in the lung are very rare, and generally the organ is invaded from the mediastinum, and presents many points of contrast to what occurs in phthisis. I can nevertheless easily imagine that a localised, easily softening growth might be very difficult of recognition.

Having now briefly pointed out the main conditions found in the lungs which may considerably affect our diagnosis of phthisis I should like to refer to a few of the more important symptoms which, though often of extreme diagnostic importance in phthisis, are nevertheless not pathognomonic. Firstly I will deal with hæmoptysis. Dr. Burney Yeo lately said that often hæmoptysis was the most favourable condition towards the cure of phthisis, as it made the patient take adequate precautions. That is no doubt true, but we must primarily be certain that the hæmoptysis is of tuberculous origin. I need not speak of the importance of deciding whether the case be one of hæmoptysis or hæmatemesis. I assume that it is undoubted hæmoptysis. Now in middle-aged and elderly persons hæmoptysis is not so simple a matter as it seems. Most probably, I grant, it comes from a cavity with vessels running in its walls that, being unsupported on one side, have become aneurysmal. But there are two other questions to be disposed of: (1) Does the hæmoptysis depend upon the same causes as lead to cerebral hæmorrhage and epistaxis in the subjects of chronic renal disease? and (2) Does the hæmoptysis arise, as Sir Andrew Clark has shown it sometimes does, in a person of arthritic tendency and quite apart from either renal changes or phthisis? Now renal hæmoptysis, if I may so call it, may be easily diagnosed by the state of tension of the pulse, and above all by deciding by gentle percussion the extent of the cardiac area. The size of the heart will settle the question. If dulness extend up to the upper border of the third rib and beyond the middle of the sternum I believe phthisis may practically be put out of the question; for the heart in phthisical patients, in the immense majority of cases, is below the normal weight and size, while in chronic renal disease, as is well known, it is generally hypertrophied. So far I have only seen one case of Sir Andrew Clark's arthritic hæmoptysis, and in that the amount of blood expectorated was considerable and lasted over several days; the patient was about fifty years of age; there was no renal disease and absolutely no ground for assuming phthisis after many most careful examinations. On the other hand, the patient exactly answered to the type of case Sir Andrew Clark has described. I confess though that at first I regarded the blood as coming from an undiscovered phthisical cavity. Secondly, wasting may mislead us. There are few diseases in which wasting is so great or so rapid as phthisis, and yet I remember one case I saw early in 1890 in which most marked wasting took place as the result of mere inanition in a patient suffering from hysteria; she was fifteen years of age and was reported to have maintained life on half a pound of grapes and some raspberry jam for a period of three months. That fact, aided by the knowledge that she was regarded as a marvel in the small village where she lived, caused me to doubt the diagnosis of phthisis publicly given out by the medical man in attendance. I examined her most carefully, found no tuberculous mischief, but had my provisional diagnosis of hysteria confirmed in a number of ways that need not now be recapitulated. Removal from the surroundings, strict moral treatment combined with forced feeding and massage, produced in a month so considerable a change in the patient's physical condition that I had great trouble to protect her from the unkind remarks of her neighbours, who had previously been so loud in their expressions of compassion. If she had had a slight "bronchial catarrh" at the same time I should not have felt so certain of my diagnosis. Thirdly, as regards cough and expectoration. It is necessary to remember that cough need by no means be caused by a lung condition. Irritability of the fauces, a pendulous uvula, any irritation about the larynx or in the ear may cause it, and when combined with some expectoration, as it usually is, and of lengthened duration, any of these causes may lead to an unfounded suspicion that phthisis is incipient. The granular condition of the pharynx common in cigarette smokers is a typical example of this. The cough and expectoration will last throughout a summer and give rise to alarm. Whenever, therefore, cough and expectoration are present and chest symptoms are absent or of very small extent, we must not assume the existence of phthisis until we have decided that the throat cannot possibly or sufficiently account for them. There must be a cause for them, I grant, but with patience it will be found, and possibly not in the lungs; while it is as satisfactory to find them dependent upon a remediable throat condition, for example, as it is unsatisfactory not to refer them to a lung condition upon which, notwithstanding the absence of chest signs, they may nevertheless depend. With regard to the expectoration, some slight reference is necessary. The sputum of phthisis, though typically nummulated, is not always so. Many cases, and particularly those in an early stage, produce only "bronchitic" sputum, and yet bacilli may be found in quantities. This was the character of the sputum in the first two cases I have mentioned above. Next you will find some cases of bronchiectasis and of chronic bronchitis in which the sputum is typically nummulated. With these cases one word of caution is necessary. Cases of chronic bronchitis are not always uncomplicated and often with them coexists an old fibroid phthisis; it is very necessary to inquire for a history of phthisis in early years before one concludes with certainty that the nummulated sputum in an apparently simple case of chronic bronchitis does not come from an old much-contracted cavity. Fourthly, hectic temperatures and sweating are not peculiar to phthisis; I remember at least one case of empyema where such a mistake was made. Remember also that apical emphysema may surround and mask an old nodule of tubercle. The importance of searching for underlying quiescent phthisis in chronic bronchitis and emphysema is great on account of the tendency such lesions have to smoulder on and some time or other burst into active growth. Lastly, I should like to mention two small points of practical value in the diagnosis of a cavity, and the first is that in examining a patient for pectoriloquy or whispering pectoriloquy it is advisable to make him read from a book rather than say the familiar "one, two, three," or "ninety-nine." If, in taking care that the unoccupied ear does not receive the sounds we are able by means of the auscultating ear to understand the words whispered, the diagnosis of a cavity may be absolute, but when the words are familiar we are apt to think we hear more than we actually do hear. The second point is that the character of the cough is important; an impulsive cough, seeming to rush up the stethoscope, may be heard when pectoriloquy is not obtainable, and, I believe, is of extreme value in diagnosis. Such a condition I have often noticed in cases of receding or fibrotic phthisis in which a cavity is becoming contracted. As may be easily understood, it is a particularly valuable sign from a prognostic as well as a diagnostic point of view.

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DYSPEPTIC HEADACHE: A HISTORICAL SKETCH.

BY HARRY CAMPBELL, M.D. LOND. &c.

THE intimate sympathy between the head and the stomach was well known to the ancients. Thus Galen alludes to the vomiting which may follow upon fracture of the skull and to the headache which may result from gastric disturbance.[1] Cœlius Aurelianus and Alex. Trallianus also, among other writers of antiquity, insist on the consensus existing between these two parts of the body,[2] and it has been con-

[1] Kuhn's edit., vol. viii., pp. 178, 179.

[2] Laberraque: Essai de la Céphalalgie et la Migraine, p. 24. Paris, 1837.

stantly commented upon from their time to our own.[3] But while thus recognising it, and even observing that a similar sympathy or consensus obtains between all parts of the human frame, these old writers had only dim notions as to how it was set up. Nevertheless, in their gropings after its cause they came very near to the true explanation, so far as head and stomach are concerned. Galen, for example, definitely attributed the headache resulting from gastric disorders (1) to the numberless nerves which, passing from the head to the stomach,[4] allow any gastric disturbance to be readily felt in the head, notably disturbances arising from the presence of yellow bile[5]; (2) to indigestion causing certain irritating humours and vapours to pass from the stomach to the head—"for the head does not only ache when itself diseased, but on account of the stomach, which transmits the vapours of morbid humours."[6]

Coming down to a much later date, we find the subject summed up by Montalto in the following passage: "Magnus cum cerebro consensus ex duplici pendet causa; prima est positus et rectitudo, cujus causa ascendentes *vapores prompte susceptat;* altera nervorum est communitas."[7]

The views of Galen are remarkable, for they are fundamentally the same as those held at the present time. The modern theory is that morbid states of the alimentary tract affect the head in consequence (1) of nerve currents streaming upwards, (2) of the accumulation in the blood of poisons resulting from indigestion. These substances the ancients regarded in the light of morbid humours and their vapours, while we call them ptomaines, leucomaines, and nitrogenous excreta. They recognised as clearly as we do the existence of something which, travelling about the body, exercises an injurious influence upon it. Nor does the harmony between the views of the ancients and those held to-day end here; they, too, attributed a greater influence in the production of the head troubles resulting from gastric disturbance to the "morbid humours" than to the nervous system. It was for the men of a later age to lead us awhile into the error of regarding the nervous factor as the more effective of the two, and perhaps it is not to be wondered at that, just when the functions of the nervous system were beginning to be understood as they had never been before, its importance in this respect should have been unduly rated for a time. Indeed it was but natural that the brilliant work done in neurology by Willis, Whytt, Marshall Hall, and Brown-Séquard should, by awakening a proper sense of the importance of peripheral irritation in causing central nerve disturbance, somewhat blind the eyes of pathologists to the other agencies aiding to produce the headache and other cephalic effects of indigestion. Now, however, that we are no longer dazzled by the new light, we are beginning to see again what the ancients dimly saw long ago—that it is blood poisoning that plays the most important part in the causation of the phenomena under consideration. Nevertheless, even now there are some who attribute a very marked influence to irritation of the visceral nervous system. Thus Mercier holds that the abdominal viscera influence the head by their power of modifying the nerve tension in the visceral moiety of the nervous system.[8]

Seeing then that so many ill-effects of indigestion are undoubtedly due to the action of poisons—call them acrid humours, vapours, leucomaines, urates, or what we will—I shall briefly pass in review some of the theories which have been current on the subject so far as they relate to headache. Since the time of Galen yellow bile, one of the cardinal humours, has been regarded as a cause of headache, and it still is by the laity and by not a few physicians. Trallianus,[9] who lived some years later than Galen, and Haly Abbas, who, in common with most Arabian physicians, borrowed largely from Galen, both follow him in looking on bile as one of the commonest causes of sympathetic headache, and allude, like him, to the relief to the head obtained by vomiting.[10] Very much the same views are to be found in the writings of the Middle Ages and later. Thus Charles Lepois attributes megrim to bilious vapour forcibly travelling upwards and distending the cerebral vessels,[11] and in the Sepulchretum of Bonetus[12] we read of a case of headache: "Cujus nulla alia in corpore causa deprehensa quam bilis cystim felleam distendens." It is argued that the gall-bladder being distended with bile and having no room for more, this secretion "crurori confusa ad cerebrum delata est." Fernelius speaks of headache arising from bilious vapour, and, indeed, cases of this kind might be quoted from the older writers *ad infinitum.* No doubt these views took their origin in the phenomena of megrim, which is commonly known as "bilious headache." That a headache attended by bilious vomiting, and in many cases distinctly relieved by the act of vomiting, should be thought to have a biliary origin was but natural. When, however, megrim came to be regarded as a nerve storm and the gastric symptoms as secondary—the results of a primary central discharge—the influence of the bile in provoking the attack was in large measure disregarded. No writer has done more towards consolidating and furthering our knowledge of megrim than Liveing, and he, in his anxiety to emphasise the secondary character of the gastric phenomena accompanying the paroxysm, seems unwilling to admit that errors in biliary secretion may be a possible factor in causing the attack, although he acknowledges that previous dyspeptic troubles may contribute to it. Alluding to the popular opinion, which regards bile as a cause of headache, he writes: "As in so many other instances, what was once the teaching of the philosopher is preserved to us only in a fragmentary form in popular language and traditions."[13] There are still, however, physicians who hold that the bile may play some part in causing megrim. Lauder Brunton, for example, thinks that the popular belief in regard to bilious headache is not altogether erroneous. He looks on bile as an accessory, not a primary, factor in its causation, the poisonous element consisting of an alkaloid; and he points out how in these attacks the mere effort of retching, without bringing anything up, sometimes does good, probably by its mechanical effect on the liver.[14] But even granting that disorders of the biliary secretion take little or no part in causing megrim, few will deny their power to set up headache of some kind; and we have to take into account not only excessive, but also deficient, secretion of bile. Deficient secretion implies a sluggish liver, and a sluggish liver is obviously a cause of headache, leading as it does to blood poisoning; for not only is there imperfect transformation of the poisonous substances brought to it, but the insufficient supply of bile in the intestines resulting from its inactivity gives rise to the undue generation of poisons there. How profound are the nervous disturbances (headache included) which may result from errors in the hepatic function is well shown in acute yellow atrophy. Murchison, as we all know, attributed lithæmia, of which headache is a prominent symptom to the liver, and more recently Haig has pointed out the causal relation between uric acid (the formation of which is perhaps closely associated with the hepatic function) and megrim. If, then, we regard the biliary secretion as typifying the hepatic functions in general, we must admit a considerable measure of truth in the old views which represented bile as a cause of headache.

Another cause, according to the ancients, was imperfectly digested food. Thus Haly Abbas writes that defective sleep causes headache by occasioning "a corruption of the food in the stomach," and he adds, "protracted sleep in like manner fills the brain with vapours"[15]; while, like Galen, he alludes to the plentiful supply of nerves passing from the stomach to the head, he does not attempt to explain how headache can be induced by their instrumentality, and there can be little doubt that he followed the old Roman physician in regarding the vapours which were supposed to pass from the alimentary canal to the head as exercising the preponderating influence. That this view prevailed even down to the time of Willis is evident from the following passage: "Headaches which

[3] See such passages as "Concensus ventriculi cum capite et capitis cum ventriculo" (Hoffmann); "Magnum inter ventriculum et capitis interiores membranas ipsumque cerebrum esse consensum, multis experimentis novimus" (De Dolore Capitis, J. F. Stuckens, Brux. 1787). Similar remarks are frequent.

[4] "For the brain transmits to the stomach, and the stomach to the head, its own affections, by reason of the abundance of nerves passing from the brain to the mouth of the stomach." Kuhn's edit., vol. viii., p. 179. Galen was familiar with the vagus and its distribution. The two vagi constitute his sixth pair of nerves. He speaks of the sixth nerve giving branches to the larynx, the lungs, the heart and the stomach, and he names the branches which enter the larynx from below "the recurrent laryngeal." He was also acquainted with the motor and sensory nerves. See vol. iv., pp. 371, 528, vol. iii., p. 384.

[5] Galen says in effect: "Headache may be caused by yellow bile either in the stomach or the head." Opus cit., vol. xvi., p. 49.

[6] Opus cit., vol. vi., p. 807.

[7] Archipathologia, p. 137. 1614.

[8] Sanity and Insanity.

[9] See Liveing: On Megrim &c., p. 235. London, 1873.

[10] See Paulus Ægineta; Trans. from the Greek, with a commentary, by Francis Adams, 1844, London, vol. i., p. 354 et seq.

[11] Selectionem Obser., 1, My. Opus novitate doctrinæ &c., 1618.

[12] Quoted by Wepfer: Observationes &c. de Affect. Capitis. Scaphusii, 1727.

[13] On Megrim &c., p. 225. London, 1873.

[14] Disorders of Digestion, p. 295. London, 1886.

[15] Paulus Ægineta, opus cit., vol. i., p. 354.

seem to begin in the viscera, and commonly called sympathetic, are wont to be ascribed to vapours—viz., by supposing a mine of noxious humour to lie hid in some inward, from which being moved, whilst the effluvia ascend to the head and thence sharply pierce thorow and pull the nerve fibres, pains are excited."[16] Here no mention is made of any theory of a nervous connexion between stomach and head; and it can scarcely be doubted that so learned a physician as Willis would have referred to it if such had been generally held in his time. Galen, in fact, did little more than state as an anatomical truth that the head and the stomach were connected by nerves; he did not elaborate the physiological aspect of this connexion, and hence his observations seem to have had little influence on subsequent thought, so little indeed that Willis may almost be said to have rediscovered the connexion. Far from contenting himself with a bare anatomical statement, this physician sought to explain how the head is influenced through the gastric nerves. As a result of an irritating humour in the stomach, "a convulsion or corrugation, very troublesome, is impressed on the fibres and extremities of the nerves there inserted, which immediately being continued into the head by the passage of the same nerves of the eighth pair (vagus) and of the intercostal[17] (sympathetic) is communicated to the membranes and the nervous fibres predisposed to painful wrinklings ..... [and thus the headache is produced]. By reason of the same reciprocal communication between the stomach and the head a nauseousness and vomiting follow upon the headache—viz., the membranes being stirred up into painful wrinkling ..... and transferring the evil by the passage of the nerves to the ventricle [stomach], guiltless itself," &c.[18]

More than a century later, however, we find from the writings of Whytt, another English physician, that these views had gained little hold on the medical mind. Whytt, it may be remembered, explained the sympathy between the various parts of the body as due to the union of nerve fibres in the centres of the brain and cord, and not, as Willis had conceived, by the anastomosis of the nerves; "for," he argued, "there is a remarkable sympathy between many parts whose nerves have not the smallest communication with one another."[19] The fallacy which Whytt points out is constantly maintained even to-day. The renowned Hilton was misled by it. But this by the way.

That the observations of Galen, or of even those of so late a writer as Willis, on the nervous connexion between the stomach and the head made little impression on Whytt is shown by the following passage: "Hippocrates was not wholly ignorant of a general sympathy between the parts of the body, and Galen treats particularly of those diseases which arise from *sympathy* or *consent*, but he was so far from having any notion that sympathetic affections were owing to the nerves that he ascribes those headaches which do not proceed from any fault in the head to vapours ascending from the stomach or uterus. Succeeding writers, even as far down as Fernelius and Sennertus, seem to do little more than copy what Galen has said on this subject."[20] Liveing[21] is not slow to point out that Whytt fails here to do full justice to Galen, nor, indeed, is he fair to Sennertus, who in his chapter on headache insists most explicitly on the great sympathy established between the head and the stomach by virtue of the nerves, though he attaches the chief importance to the influence of humours and vapours in causing the head to suffer secondarily to the stomach. These, he contends, are especially apt to come from the stomach, "from which they ascend to the head by means of the œsophagus. Humours and vapours may also come by the veins and arteries and other channels, from the liver, the spleen, the uterus &c., for the head, like the roof of a smoky house, receives whatever fumes rise from below, and is necessarily influenced by all parts of the body, owing to the intercommunication of vessels which ramify through it."[22]

[16] De Anima Brutorum, Sect. on Headache. Eng. Trans.

[17] Up to this point Willis's conception may be regarded as almost exactly representing our views to-day. The conception of a convulsion or corrugation being continued along a nerve corresponds pretty accurately to the modern notion of a nerve current. Indeed, in some respects the phraseology which Willis employs is preferable to our own. The term "current" suggests the flowing of some material thing along the nerve, and is, I suppose, the relic of the old notion of a nervous fluid. Willis was much before his time as to the mode in which a nerve shock is propagated.

[18] I find the above passage from the English translation of Willis's works quoted almost word for word in the Sepulchretum, vol. i., p. 4.

[19] Observations, p. 42. Edinburgh, 1765.

[20] Ibid., p. 87.

[21] Op. cit., p. 255.

[22] Sennerti Opera, tom. ii, p. 530. Lugd., 1650.

Indeed, there can be little doubt that not only Sennertus, but writers down to the end of the last century, explained those cephalic disturbances which follow upon gastric trouble chiefly on the lines of the humoral pathology, nervous influence (in spite of the brilliant work of Willis) receiving but little consideration. With an increased knowledge of nervous action we have seen, however, that these came for a time to be considered the chief means by which the stomach affects the head, and at the present day we are practically reverting, if not to the actual letter, at all events to the spirit of the older pathology in that we are again giving more weight to the influence of poisons in the blood. We are, in fact, beginning to see that just as Willis, when he wrote of a nerve being "convulsed and corrugated," was expressing in his own way a great truth, so, underlying the quaint conception of morbid humours and vapours, lay a grand fundamental verity—that cephalic troubles which are set up by gastric disturbance are chiefly caused by blood poisoning.

Guilford-street, W.C.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL AND THERAPEUTICAL.

ACUTE THYROIDITIS.

By J. C. M. GIVEN, M.B. LOND.,
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THE rarity of acute thyroiditis, together with the gravity of the symptoms and its sudden onset, makes, I think, the following case worth recording.

M. B——, a nurse aged twenty-three, was taken ill suddenly on April 5th, 1892, with general malaise and pain in the neck. That evening her neck began to swell, her temperature rose to 105·3°, and she complained of difficulty in swallowing and breathing. Next morning, on examination of the thyroid region, there was found to be a large tense swelling extending laterally to the sterno-mastoids downwards to within an inch of the sternum; above it was limited by the hyoid bone, which could just be felt, but on each side of that structure it extended upwards to the angle of the jaw and the mastoid process. On palpation it was exceedingly tense, non-fluctuating and very tender to the touch, and did not move on deglutition. The enlargement was of such a size that the patient could scarcely separate her teeth, and that the normal depressions over the anterior triangles and the prominence of the thyroid cartilage were completely obliterated. Deglutition was extremely difficult and there was occasional inspiratory stridor. The fauces were slightly congested, but otherwise normal. The patient was evidently very weak. Pulse 140, soft and small. On April 7th the general condition was rather better; temperature 102°. The swelling was now fairly localised to the thyroid gland, and moved slightly on swallowing. The difficulty of deglutition was much less and the inspiratory stridor was absent. On April 8th the enlargement had slightly decreased, but some subcutaneous œdema, most marked on the right side, had appeared; there was no redness of the skin and no definite fluctuation, and as the urgent symptoms were abating, the surgical interference, which at first was thought would be necessary, was postponed. Leeches were applied, and the hot fomentations which had been used from the commencement were abandoned. After this the patient steadily improved; on April 14th the swelling was almost confined to the right lobe of the thyroid, which was still tense and tender and semi-fluctuating. The measurement round the most prominent portion of the neck was fifteen inches and a quarter. The temperature still went up to 101° at night. On April 21st the swelling had sensibly decreased, neck measurement fourteen inches, and the patient had been getting up for a little time each day, her temperature being normal. On May 24th she came back, having been away for a change, and stated that she felt quite well. The measurement of the neck was thirteen inches, and she now wears the same collars that she did before the attack.

The treatment adopted was expectant. The two great difficulties were, first, to diagnose the trouble in the first forty-eight hours from a diffuse cervical cellulitis; and, secondly, to determine in the later stage whether pus was forming in the

thyroid. Fortunately this did not occur. She was freely fed with nourishing food and was ordered ten minims of tincture of perchloride of iron every three hours. It appears that before the attack she had always a slight fulness of the front of the neck, but it was so slight that it had never been noticed by her friends. The exciting cause is unknown, there having been no definite exposure to cold; but with regard to the predisposing cause it is interesting to note that the patient had had acute rheumatism, which disease was said to be in close relationship to such cases as those related by Dr. Angel Money at the Clinical Society in 1887, when the only other similar case I can find reported was read by Dr. Barlow.

Liverpool.

ARSENICAL POISONING: DEPOSIT OF SULPHIDE OF ARSENIC ON THE ENDOCARDIUM.

BY SURGEON-MAJOR R. D. MURRAY,
CIVIL SURGEON OF HOWRAH, BENGAL.

THE following case is extremely interesting both from a police and a medico-legal point of view.

On Aug. 7th last at 9.30 A.M. I received intimation that the police had brought a box to the Howrah General Hospital dead-house. They stated that the box had been booked as a consignment from Patna city to Howrah. On arrival at Howrah the odour and fluid leaking from the bottom of the box attracted the suspicion of the authorities, and it was determined to break it open and find out the nature of the contents. It was then discovered to contain a decomposing human corpse packed in paper shavings. A post-mortem examination was made at 11 A.M. on Aug. 7th. The body was that of an adult Mahomedan female, perfectly naked, without ornaments and laid on its back with the limbs doubled up on the trunk. Decomposition was fairly advanced, but there was comparatively little odour. The features were bloated beyond recognition; the left eye was protruded, mouth open, lips swollen and everted, left lateral incisor tooth of lower jaw absent, body purple and green in places, cuticle peeling, prolapsus of vagina and rectum. No distinct external signs of violence could be detected beyond a suspicion of injuries inflicted over the front and upper part of the chest, where there was an appearance of general diffuse ecchymosis and congestion. These may have been post-mortem changes. The scalp was swollen and congested and indented from pressure against the side of the box. The membranes were of a livid purple colour, the brain decomposed and diffluent. On opening the body I was struck by the fresh and well preserved appearance of the viscera and the absence of the usual foul putrid smell. This was especially marked in the case of the abdomen. The air passages and pleurae were deeply congested. The lungs were semi-collapsed, much congested, and floated very heavily in water. The pericardium was normal. The heart was soft, from post-mortem changes, and empty; valves healthy. The endocardium of the left ventricle presented a peculiar bright-yellow stain or deposit over one-third of its area, as if iodoform had been powdered on it. The peritoneum was generally congested and of a rosy hue, especially over and in the region of the stomach. The mucous membrane of the stomach was intensely congested and ecchymosed in patches; it contained about eight ounces of reddish-brown fluid. The small and large intestines were congested throughout and contained a bright-yellow odourless fluid. There were no faeces. The liver and spleen appeared healthy; the kidneys were deeply congested; the bladder was empty, and the rectum, uterus and vagina were prolapsed. The stomach and its contents, the heart, portions of the intestines and their contents and also portions of the solid viscera were preserved and sealed for chemical analysis. I suspected that death was the result of poisoning by arsenic, and subsequently the chemical examiner's report fully confirmed my opinion. The important points were: (1) The unusual degree of preservation of the interior of the body as contrasted with the external decomposition owing to the antiseptic action of the arsenic; (2) the remarkable action of foul odour on opening the abdomen and alimentary tract (from the same cause); (3) the extreme congestion of the peritoneum, stomach and entire intestinal canal; (4) the bright-yellow odourless fluid contained in the intestines and the small mineral particles floating in it at once suggested yellow arsenic in suspension; (5) the deposit of yellow sulphide of arsenic on the endocardium as reported by Professor Warden. So far as I know this is the first time that metallic arsenic has ever been found as a deposit or precipitate in the heart in cases of arsenic poisoning. In this case the dose of arsenic administered must have been very large, and the poison was probably mixed with or given instead of turmeric, which is so largely used by the natives in their diet. Being tasteless its detection during the meal would be easily frustrated. Arsenious oxide, however, may have been the form administered, as it can be converted into sulphide in the body. The appearances of the chest walls, lungs and air passages were suggestive of violence by compression of the chest and strangulation, but on account of decomposition a definite opinion was impossible on this point. Most probably the woman's cries were stifled so as to prevent an alarm being raised, especially as the dose of poison administered must have been large and the pain and gastric disturbance severe and urgent. The murderer has since been captured and has confessed his crime. The police found a packet of yellow arsenic in his house.

Howrah, Bengal.

FRACTURE OF UPPER END OF THE ULNA, WITH DISLOCATION OF THE HEAD OF THE RADIUS.

BY HENRY WILLIAMSON, M.R.C.S., L.R.C.P. LOND.,
LATE HOUSE SURGEON, ANCOATS HOSPITAL, MANCHESTER.

G. R. P—— was brought to the hospital on June 4th with an injury to the forearm caused by direct violence. On examination I found a fracture of the upper end of the ulna nearly three inches and a half from the top of the olecranon. Not being able to rectify the displacement of the upper ulna fragment I made a more careful examination of the limb and found that the head of the radius was dislocated forwards. On reducing the dislocation it was found that we had partly rectified the displacement of the upper ulnar fragment. It was now an easy matter to get the ulna into correct position and a good result was thereby ultimately obtained. The case is of great interest when taken into consideration with Professor Macleod's recent paper on this injury, and certainly demonstrates very clearly the great importance of two of his practical precepts—viz.: (1) Whenever we find a fracture of the upper end of the ulna careful examination for a dislocation of the head of the radius should be made; (2) should such a dislocation be found it must be reduced at once and endeavours made to rectify the displacement of the upper ulnar fragment at the same time. From my experience in this case I conclude that the reduction of the dislocation is by far the most important item in the treatment.

Manchester.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se compare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

TRAUMATIC PERITONITIS; ABDOMINAL SECTION; RECOVERY.

(Under the care of Mr. EDMUND OWEN.)

DURING the last few years there have been many contributions and discussions of moment on the subject of the treatment of peritonitis by abdominal section, and our appreciation of its value in many instances, especially where the inflammation has passed on to suppuration, whether localised or diffused, has grown in proportion to our knowledge. To say that it has proved successful in peritonitis following simple contusion, rupture of viscera by injury, perforation from disease, puerperal infection, tuberculous infection and simple contusion indicates in some way its range of usefulness. We do not urge its employment in every case—far from it; each case must be judged on its

own merits and treated in the way which is most likely to yield the best result. There is no doubt, however, we think, that in the past there has been too great timidity in dealing with the group of cases of which Mr. Owen's is an example—acute peritonitis following contusion of the abdomen. It is true that in this instance the inflammation had been in existence for some time, and therefore there was at first less apparent urgency than in the more acute traumatic inflammations, but it is also evident that without operation only one result—that a fatal one—could have ensued. The reason why peritonitis of such intensity followed the injury in this case will probably not be known; it could not have been due to a rupture of the intestine or of the bladder. In a case of acute peritonitis operated on by Mr. Owen, which was published in THE LANCET some years ago, ruptured intestine was found, but the mischief had gone too far for cure and death rapidly ensued. Even in such cases operation may not be too late, for Bouilly has made known a case in which, as a result of operation twenty-eight hours after the kick of a horse which produced a rupture of the intestine, the ensuing peritonitis subsided, after resection and suture, but with the formation of an artificial anus. The proceedings of the French Surgical Congress of October, 1889, a paper by Mikulicz read at the eighteenth German Surgical Congress in 1890, a paper by Krecke in the *Münchener Medicin. Wochenschrift* of 1891, and isolated cases by various surgeons, notably two by Mr. Keetley published in THE LANCET (vol. ii. 1888, p. 1021), may be read with advantage. For the notes of the following case we are indebted to Mr. J. W. Summerhayes.

On Friday, June 24th, 1892, a man aged twenty-three was admitted into this hospital with the following history. On the evening of June 7th he was riding a 56 in. bicycle in the country and his lamp went out. This was noticed by a policeman who tried to stop him, with the result that the patient was pitched across the sharp top of a wooden fence. Thus he was struck upon his abdomen, and from the top of the fence he fell to the ground. He was helped up and taken home. Towards the end of the week diarrhœa set in, and on the Sunday his abdomen was swollen and painful. These troubles continued and increased, and on the day before his admission, which, as already noted, was the seventeenth day after the accident, he vomited. He had during this time lost a good deal of flesh. His mother said that he had always been fairly strong, but that one of his brothers had died of "consumption."

When seen in the ward his aspect was much like that of a typhoid fever patient. The pulse was 130 and the temperature was 103°; the face was flushed, but he had no headache; there were no spots. He complained of constant pain, especially on the left side, and the abdomen was considerably enlarged; the peritoneal cavity contained a good deal of fluid, on which the intestines were floating. There was a faint flush of the skin. The bowels were regular. Turpentine fomentations were applied to the abdomen and half-drachm doses of sulphate of soda were prescribed every hour until a free purgation was produced. The diet consisted of a little brandy and beef jelly with some milk. Dr. Sidney Phillips saw the man with Mr. Owen, and on the second day after admission, as the patient was steadily going down-hill and had, moreover, the aspect of one about to die, it was agreed that an abdominal section should be performed, partly with the view of clearing the peritoneum of a possible collection of pus, and partly with the view of searching for and repairing a possibly damaged viscus. As the chief pain lay about the sigmoid flexure the incision, of about three inches, was made in the left linea semilunaris. About five pints of blood-stained serum were removed, together with several large clots of fibrine, which latter, together with a general roughening of the peritoneal lining, testified to the intensity of the serous inflammation. As no intestinal fluids, blood, or actual pus were found, the operation was completed by the closure and dressing of the wound. Next day the pulse had come down to 120 and the temperature to 101°, and on the following day the pulse had fallen to 88, whilst the morning temperature reached only to 99·2°. The man left the hospital completely recovered at the end of July.

Remarks by Mr. OWEN.—If it be urged that abdominal section is a severe measure for adoption in the treatment of traumatic peritonitis, the criticism must be considered fair. But, on the other hand, it would be maintained that the term "peritonitis" includes many various conditions. It was certainly my opinion, as well as that of most of those who watched the case with me, that this operation saved the man's life. Possibly it was the relief of tension to which the improvement was to be attributed. And if so, a large cannula and trocar might possibly have served as well as a scalpel. But with the use of the former instrument no introspection would have been possible, and an introspection, especially in the case of traumatic peritonitis, may prove of inestimable value. The more that I see of abdominal surgery the more satisfied am I of this—that in an obscure case the only way for the surgeon to assure himself of what is wrong is by the means of transperitoneal touch or sight. To stand at the bedside and take part in a speculation as to what is wrong, and to wait for the necropsy for positive information, is not Surgery. For my own part, I have never yet had cause to regret performing an exploratory abdominal section; but I have often found occasion to mourn for an error on the side of over-caution. There is, I think, a close analogy between a case of inflamed peritoneum and one of acute inflammation of the synovial membrane of the knee-joint. At any rate, the local signs and the effects of tension are alike in each case, and in some cases the indications for treatment are identical. Not a few remember the time when in every instance the surgeon was loth to interfere; but, with the march of science, times are changed; and he is an unwise surgeon who, deeming his therapeutic knowledge to be complete, is disinclined to admit of changes in his routine treatment.

DENBIGH INFIRMARY.

SUBCUTANEOUS LACERATION OF THE SMALL INTESTINE; NECROPSY.

(Under the care of Mr. WM. GRIFFITH.)

WE are of opinion that much good will ultimately result from the publication of cases such as the following, in which a fatal peritonitis was found after an injury of the abdomen which had caused rupture of the intestine. There appeared from the history of the case no cause for suspecting the presence of so grave a lesion as rupture of the intestine, for such would, with but few exceptions, be caused by a definite and direct blow. The symptoms were similar to those described in some cases where intestinal rupture has been found post mortem or at the time of operation, but the history was misleading; and it is not surprising that other than operative treatment was tried. Until a few years ago the surgical treatment of subcutaneous rupture of the intestine, even when diagnosed, was based on a policy of "masterly inactivity"; the surgeon watched the case for a time, peritonitis ensued, and it was then too late to do good if an operation was performed. It has been fully proved by Mr. Croft and others that success may follow laparotomy and suture of the bowel, or even the formation of an artificial anus if the operation is done at an early stage, and this must be attempted by the surgeon responsible for the patient. The publication of these cases increases our knowledge of the varying symptoms which may be met with, and more may be gained by the account of them than is apparent always to those under whose care an isolated case may come. We have only to point to the good which has followed the publication of cases of bullet wounds of the intestine by American surgeons, whether the cases ended fatally or not, in order to emphasise this statement. Some of the most brilliant results are now attained after operation for these wounds. Formerly any attempt to save life by means of a surgical operation was considered useless.

R. J——, a labourer aged twenty-three, was admitted into the Denbighshire Infirmary about 5 P.M. on Aug. 12th, having met with an accident about an hour before while engaged in loading a waggon with timber. His fellow workmen stated that a piece of timber had rolled from the top of the waggon, hitting him on the back and knocking him over. The first shock caused him to faint, but he soon recovered consciousness, complained of pain in the back and abdomen, and vomited. When examined in bed after his admittance he was found to lie on his left side with his legs drawn up, was perfectly conscious and rational, described the accident and gave particulars of his injuries. He had been struck with the timber over the middle and upper portion of the sacrum; there was some swelling and bruising over the spot, but no fracture or dislocation; there was also some bruising over the left hip bone a little below and about two inches behind the anterior superior spine of the ilium and a faint bruise on the front of the abdomen a little below

and to the right of the umbilicus. The patient was suffering from severe shock and his general condition was that of collapse; he appeared to be drowsy and somnolent, but took notice when spoken to, and complained of severe pain in the abdomen, which was extremely tender in the region of the bruising. His pulse was hardly countable, being exceedingly small and quick. The temperature was 97°. The abdomen was rigid, tense, immobile and slightly distended. There were no symptoms of spinal injury. A catheter was passed into the bladder and about four ounces of urine were drawn off, clear and free from blood. He again vomited soon after admission. His countenance was pale and anxious-looking, and he was covered with a rather profuse cold perspiration; the lips were pale and dry, and there was considerable thirst; the respiration was thoracic in type, quick and shallow. He lived for twenty-five hours after admission; his condition throughout continued to be much the same as when admitted. He passed urine once naturally. There was no evacuation of the bowel and no flatus expelled. He vomited three times while in hospital; the last time, which occurred immediately before death, the vomit was stercoraceous. The abdomen was gradually getting more distended. The patient became rather delirious and took to lying on his back. About twenty minutes before death the patient, who a short time previously to that had become a little excited and restless, jerked himself up suddenly in bed and fell back with a loud groan, senseless and pulseless, expiring without again recovering consciousness.

The treatment consisted in wrapping the patient warmly in blankets and applying hot bottles. Ether was given subcutaneously and a little hot stimulant administered by the mouth; hot fomentations were applied over the abdomen and morphia given hypodermically to allay pain. A little fluid nourishment was also given and retained. The necropsy, two days after death, yielded the following results: Peritoneum, both visceral and parietal, and the omentum were reddened and hyperæmic; no flakes of lymph. The small intestine was carefully examined inch by inch; starting at the cæcum about a foot and a half above the ileo-cæcal valve, the intestine was found to be completely cut across and its mesentery deeply lacerated. The cut ends of the intestine were dark in colour, bruised and bloodstained; the abdominal cavity contained a large quantity of blood. The other abdominal organs were normal. Nothing unusual was found in any other part of the body.

THE GESTO HOSPITAL, SKYE.

A CASE ILLUSTRATING THE SUCCESSFUL TREATMENT OF INTERNAL HÆMORRHOIDS BY CHRYSAROBIN.

(Under the care of Dr. KEITH NORMAN MACDONALD.)

THE success which attended the application of chrysarobin in the following case renders it worthy of being placed on record. It would be interesting if others of our readers who have tried this remedy would give us their experience of its use. On July 9th, 1892, D. M——, aged sixty-one, was admitted into the Gesto Hospital suffering from bleeding hæmorrhoids. He seemed very feeble, anæmic and emaciated from loss of blood, tottering in his gait, and altogether he appeared a rather unpromising-looking subject. His family history was good, and he himself enjoyed robust health up to about six years ago, when, in consequence of a fall from a scaffold, he felt some weakness of the spine for which he was treated in the Glasgow Royal Infirmary, but has ever since suffered more or less from atrophy and weakness of the lower extremities. His first attack of hæmorrhoids occurred two years ago, and in October, 1890, he had them ligatured, and made a good recovery at the time. His present attack commenced three months ago, and ever since then he has been losing more or less blood with almost every evacuation of the bowels, and the "lump" which came down he described as being as large as a hen's egg, which often took him fifteen minutes, and even half an hour or more, before he could return it into the bowel. On the morning following his admission—a drachm of compound liquorice powder having been administered the night before—it was found that a mass of hæmorrhoids, fully as large as a Tangerine orange, occupied the cleft of the nates, from which arterial blood escaped on attempting reduction; but this was effected after free lubrication with carbolic oil. The proper line of treatment was clear enough—viz., to arrest the hæmorrhage by surgical procedure; but, owing to the state of his general health and all the circumstances of the case, Dr. Macdonald resolved to temporise—holding everything in readiness in case of need—and endeavoured to improve the general health by administering quinine and iron, with the application of cold and the usual styptics locally, suitable diet and regulation of the bowels &c. Before resorting to more active measures it was decided to give a trial to Kosobudki's modification of Unna's treatment by chrysarobin; accordingly the following formula from Whitla's "Dictionary of Treatment" was employed: One grain of chrysarobin, a quarter of a grain of iodoform, an eighth of a grain of extract of belladonna, thirty grains of cocoa butter, with a sufficiency of glycerine to form a suppository, one to be introduced daily. One was inserted on July 15th and the treatment continued daily until the 31st, when a large slough came away, followed by a little hæmorrhage, since which date he has been practically cured. During the treatment there was a little hæmorrhage on several occasions, but since the removal of the slough there has not been the slightest sign of hæmorrhage, pain or protrusion, and as far as can be seen the result is most satisfactory, even if the cure does not turn out to be permanent. No pain or discomfort was felt throughout, neither did the patient lie up entirely. He was allowed to sit up every afternoon, and, with the exception of a dose of compound liquorice powder every other night, no other treatment was considered necessary beyond what has already been stated, and he is now going about as well as he was before the attack came on, and is likely to continue so, regulation of the bowels being the only precaution practised.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Presidential Address.

THE opening meeting of the Medical Society of London was held on Oct. 17th, the President, Mr. Jonathan Hutchinson, in the chair.

The PRESIDENT delivered an address on Names, Definitions, and Classifications in Disease, of which the following is an abstract:—

"I propose, with your permission, to avail myself of your President's chair in order to make a few suggestions and criticisms in reference to a topic of great importance, and at the same time of much difficulty. I allude to the necessity, which is probably felt by most investigators, for a large reform in medical nomenclature, for better classification of disease, and, above all, for more precise definitions of the terms which we use. We have outgrown the nomenclature of our forefathers and it would be strange if it were not so. If the few and simple names which sufficed to express the diagnostic achievements of a century ago were sufficient for us now the fact would imply disgrace. For the multiform manifestations of the results of the innumerable influences which combine together to evoke disease in man our names are, I cannot but think, in ludicrous disproportion to our needs. Though there exists an intense dislike, which to some extent is well based, to the introduction of new names, and especially to attempts at new classification, yet, having regard to the future progress of clinical knowledge, I here make my most earnest protest against the present restriction of our nomenclature and the artificiality of our classifications. Let us not for one moment underrate the importance of the everyday achievements of ordinary diagnosis, or of that common knowledge of common things which is a *sine quâ non* to all of us. Our concern is rather to assert strongly that so soon as the specialist attempts to transcend his specialism; as soon as the physician or surgeon tries to get out of routine and makes the attempt to understand not alone some but all the problems of pathogenesis which are brought before him, so soon will each and all find themselves cramped and hindered by our narrow and conventional system of nomenclature and our fragmentary classifications. I ask the neurologist whether such names as 'tabes dorsalis' and 'epilepsy' do not now each include a number of separate maladies which require separate grouping. I ask the physicinn whether he is content with the terms 'diabetes' and 'hysteria;' whilst, respecting dermatology, I venture to offer my own opinion that there are at least twenty maladies classed under the name of 'lupus' which require to be discriminated, and,

putting all these aside, some five or six different types of tuberculosis of the skin. But nothing can be more obvious than that names, definitions and classifications are far more difficult in our department of natural observation than in any other. Such words as 'species' and 'genus' in our special pursuits are terms having only an exceedingly restricted use. The more we know the less we are inclined to admit respecting any given disease that it is substantive and self-complete; but the fact that definitions and classifications are in the case of medical pursuits immeasurably more difficult than in most other branches of knowledge does not make them of any the less importance. An orderly arrangement of the materials before us is the first requisite to success in the pursuit of further discoveries, and just as an adequate vocabulary must of necessity precede the making of definitions, so must carefully studied definitions precede any attempt at classification which will not necessarily result in error. Whilst in a progressive science like ours stereotyped definitions and fixed laws of classification are impossible, I yet protest against that idleness of mind which is content to go on using words to which no definite meanings have ever been assigned and to abstain from attempts at natural classification merely because such classification is difficult. A distinction must be drawn between a description and a definition. A good description should neglect nothing which may help to identification and is not a difficult achievement to any good observer, whereas a definition may be very good, yet from the fact that it concerns itself rather with abstract qualities may give but little immediate aid towards the recognition of the thing defined; to formulate it demands much thought as well as observation. In order to illustrate what I have been trying to urge we will take the names of three common diseases—phagedæna, erysipelas and diphtheria—and try to define them, and at the same time show how their definitions affect their position in any system of classification founded on natural affinities. Respecting phagedæna, it may perhaps be said that it is not the name for a disease, but rather for a certain condition occasionally assumed by the inflammatory process. I will assume that between simple phagedæna, sloughing phagedæna and hospital gangrene there is no difference of kind, but only of degree of severity; that hospital gangrene is simple phagedæna having become epidemic in a hospital containing patients affected with wounds. I assume also that the gangrenous affections which attack the mouths and genitals of young children, and which are known as noma and cancrum oris, are really of a closely similar nature, though of a more severe type, with the phagedæna which we so often encounter in syphilis. These data being granted, we have first to note that it is undoubted that cancrum oris, noma and syphilitic phagedæna may begin quite independently of contagion. It is therefore not a specific malady in the sense of being dependent upon the implantation of a specific virus. Next we must record that, although these inflammations may occur to persons seemingly in robust health, they are almost invariably those who have suffered from syphilis or, in the case of noma and its congener, recently passed through a specific fever, measles, variola or whooping-cough. With somewhat more hesitation another assertion may be made—that the use of mercury has often preceded, not only the syphilitic forms, but also those seen in children. We come, then, to the definition of phagedæna as a locally destructive form of inflammation which attacks sores and wounds, which varies much in severity in different cases and which occurs for the most part in those who have recently suffered from some specific disease. To this must be added the important proposition that, although capable of a spontaneous origin under the conditions mentioned, it is infective to adjacent parts and may become contagious to other patients with open wounds. We abstain from any description of a phagedænic wound, for the appearances may differ very widely in different cases. For classification purposes we have enough. Phagedæna is not to rank with the specific fevers, although it may become epidemic; it is a type-form of specialised inflammation occurring under certain known conditions of predisposition. The term 'erysipelas' is suggestive of controversy. For long there have been two schools of opinion—the one regarding it as a specific fever and classing it with the exanthems, the other ranking it only as a specialised form of inflammation. The difference is very important. I am glad to observe that the philosophic Dr. Hirsch has ranged himself with the latter, and defined erysipelas as 'an infective inflammation-disease of the skin or of one of the mucous membranes &c.,' and speaks of 'the infective fever which accompanies the local process.' On the other hand, most recent English authorities prefer to regard it as an exanthem. The facts which oppose this claim appear to my mind to be definite and conclusive. When erysipelas attacks a wound its development is always local, and the constitutional disturbance is in ratio with the extent of surface involved. It may develop without any appreciable incubation stage, and it may be cut short at any period by suitable local treatment. Its duration is not uniform, but may be indefinitely protracted. One attack does not prevent a second, but, on the contrary, predisposes to others. Thus, then, I come easily to the conclusion that erysipelas is a name for a form of inflammation presenting peculiar features, very infectious to the tissues—the lymph spaces of the patient—easily spreading by contagion to the wounds of others, and of which one attack leaves proclivity to a second. We have to add to this, however—unless, in contradiction of all probability, we insist that medical and traumatic erysipelas are two quite different things—that it is capable of origin from exposure to cold and without either wound or contagion. Erysipelas is, it will be seen, placed according to this definition by the side of phagedæna, and just as it would be more correct to speak of phagedænic inflammation rather than of phagedæna, so it would be better to use the expression 'erysipelatous inflammation' rather than erysipelas, since the latter is too suggestive of a substantive disease which always runs the same course and always presents the same conditions. Let us now see how the case stands with diphtheria. It is interesting to note that this name has been substituted for what was not improbably a far more correct one—diphtheritis. What is there to hinder us from defining this affection as a contagious inflammation of the mucous surfaces, and chiefly of the throat, frequently attended by the formation of pellicles, infective by continuity in the patient and easily spreading by contagion to others? It would surely be wrong to make the formation of the diphtheritic false membrane a part of the definition, for when the disease passes by contagion through a household there are always some cases which show very little membrane and often a few in which there is none at all. We do violence to probable truth if we deny that these latter are diphtheritic cases, for they originate from contagion from those which undoubtedly are such. The medical officers of those metropolitan asylums which receive fever and diphtheria cases always in their reports count a certain number of cases sent to them as 'errors in diagnosis,' and of these a considerable number are 'non-specific sore-throats' sent in as diphtheria. This is surely rather hard upon those who send them. It is to make the diagnosis of disease depend not upon its origin, but upon the degree of severity with which it develops certain peculiar phenomena which are common but not invariable. No man attending a number of patients with sore-throats, in a house with diphtheria, can possibly tell which will develop extensive membrane and which may have none. There are other important facts which ought to be taken into consideration in the definition of diphtheria. It is quite impossible to distinguish the sporadic cases of membranous croup from those of epidemic diphtheria; and admitting, as I think we must, that they are exactly the same, we are almost forced to conclude that a disease which becomes contagious may originate independently of contagion and in connexion with exposure to cold and damp. In these points the facts as to diphtheria are exactly parallel with those as to erysipelas and phagedæna. All three occur sporadically and in connexion with individual proclivity rather than specific influences, yet all may become contagious, may prevail as epidemics, and when they do so keep close to the type. I have ventured to attempt explanations of these three words, not with any object of giving model definitions, far less with any hope that what I have expressed will satisfy others, but rather to illustrate the importance of the matter and the lines upon which I think we ought to proceed. I feel sure that I shall incur criticism for not admitting to a foremost place in the definition of such affections as diphtheria and erysipelatous inflammation the parasitic microbes which have been demonstrated to be usually present. Whilst I fully admit the importance of the facts which have been established in respect to them, and think that it is highly probable that they do take a large share in the process of contagion, I am not yet convinced that they constitute the disease. It may be one thing that these parasites should be capable of conveying the disease and another that it should invariably depend for its origin

upon their implantation. In the same way the precise *rôle* of the bacillus of leprosy is, I think, far from being as yet established, whilst it would certainly be very premature to define any one form of lupus as the product of the bacillus of tubercle. In other maladies, such as rhinoscleroma, the presence of a microbe has been demonstrated in only a few instances, and to this and to others in which the search for a parasite has up to the present been fruitless I think that the disease, which is well characterised, should take its name independently of them. It is mainly in reference to very rare maladies that the invention of new names is required. For their illustrative value they are of extreme importance and ought as promptly as possible to become objects of general knowledge. In the same way the varieties of well-known diseases are worthy of recognised distinctive names. It becomes therefore of much importance to find out the most convenient method of giving names, what kind of names are the easiest to use and to remember and the least liable to suggest error. With regard to those supposed to be derived from Greek roots and to be more or less descriptive, we may object that they are intelligible only to Greek scholars, and not always to them; that to all others they are very unattractive, as, in addition to their being meaningless, they may possibly be difficult to remember and a little uncertain as to pronunciation and orthography, and principally because it is impossible to condense into Greek words, however composite, anything approaching to a correct description of a disease. Another class of names is that in which the name of the observer is affixed to the morbid phenomena observed; but it has the obvious objection that it cannot be indefinitely or even widely adopted. If, then, we revert to the proposition that names for new diseases or new varieties or combinations of symptoms should be selected solely with a view to the convenience of the profession, a few simple rules may, I think, be laid down. Such names should be short and easily remembered; they should be in the vernacular; they should be available from the very beginning, and such as the observer himself may without indecorum apply; and they should have in themselves no meaning, the reader being left to find that out by reference to the writings of the observer who first named them. I myself have long been in the habit of naming diseases which were new to me after the patients who first displayed them. It is a subject upon which I have thought much, and respecting which I have some little experience, and seriously I have no better suggestion to make to the systematic case-collector than that he should at any rate temporarily designate what appear to him to be novelties by the names of the patients displaying them. The present plan of trying to make a small number of names suffice for a vast variety of objects and of slavishly grouping together, because our fathers did it, under one and the same name diseases which differ widely is one which has encumbered us too long. Probably there is no better plan in aid of exactitude in clinical observation than to take type-cases, to follow them to their end, describe them in detail, and, wherever possible, to illustrate them by photography or drawings. By the side of the type-case place all others which really fit with it and none else. I have often thought that in such a subject as dermatology it might be well to throw aside all our names and take simply good, well-illustrated case-narratives, and sort them afresh. We should escape in this way the trammels which education has imposed and we should see natural differences and resemblances which at present elude us. I have left myself but little time to deal with the topic of classification, which I know well is a *bête noire* with many. It is supposed that the state of our knowledge does not as yet permit it. Let us remember the enormous gain to botanical science which resulted from the substitution of the natural system for that of Linnæus. Diseases of the skin have perhaps been classified with more elaboration than any other, yet not only has no really natural grouping been attempted, but the arbitrary classes and orders which have been arranged cannot, I think, be said to afford to the student anything approaching the amount of assistance which the scheme of Linnæus, artificial as it was, undoubtedly gave to the young botanist. Yet is it not possible to attempt something in the way of a natural classification of skin diseases which should be of the utmost value to the student? And what is possible in dermatology might be attempted in general medicine. He who would classify with success must enter upon his task with courage. He must not be afraid of details, he must resolutely eschew all pedantry, and be determined that nothing shall induce him to put two things in the same family group unless he is sure of their relationship. He must be willing to forego the hope of completeness and think but very lightly of finality. Under these conditions I certainly believe that a very useful classification of skin disorders according to natural affinities is both desirable and possible. We could not assign at once all maladies to their proper places, but this is not requisite. What is wanted is to effect such an orderly arrangement of classes and groups that when once the real nature of a disease is recognised there is a place for its reception. I would take a hint from botanists and name the several orders after their most prominent and typical example. Thus the disease known as 'psoriasis' having been carefully defined, I would place with it in a psoriasis family all forms of skin diseases which conform to similar laws. So with acne, pemphigus and many others. Perfectly natural groups might be formed of those caused by animal parasites and of those due to cryptogamic growths. Other groups might be constituted by those due to congenital peculiarity of tissue (Kaposi's malady and the like). In every case real affinities—in other words, relationship by sameness of cause—should be the guide in the formation of our family groups. In conclusion, I can only hope that the topics I have been bold to bring before you have not seemed to you unsuitable for the first meeting of a new session of the Medical Society of London."

CLINICAL SOCIETY OF LONDON.

Intestinal Obstruction accompanied by Thrombus in the Abdominal Aorta extending down the Iliac Vessels.—Extensive Nævus of Peritoneum.—Traumatic External Iliac Aneurysm in a Boy.—Cicatricial Stricture of Œsophagus treated by Complete Division.

THE first ordinary meeting of this Society for the winter session was held on Oct. 14th, the President, Sir Dyce Duckworth, being in the chair. The President first addressed a few words of welcome to the members on reassembling after the vacation.

Mr. W. H. BROWN of Leeds read the details of a case of Intestinal Obstruction accompanied by Thrombus in the Abdominal Aorta extending down the Iliac Vessels. A man aged fifty-eight, previously healthy, was seized with sudden pain in the body; the usual symptoms of obstruction followed, but were never severe, and entirely subsided before death, which took place seven days later, the cause of death being gangrene of both lower limbs. The post-mortem examination showed a band enclosing five feet of small intestine in a gangrenous condition, together with a clot (thrombus) in the abdominal aorta plugging the vessel from just above the bifurcation to the termination of the iliac vessels.—The PRESIDENT regarded the thrombosis of the aorta as coincidental rather than consecutive. He asked if the omental adhesion acted as a band and compressed the intestines, thus causing the gangrene.—Dr. GLOVER inquired for further details as to the previous history.—Mr. BROWN, in reply, said the omental adhesion had acted as a band and constricted the intestines. It was not attached to the aorta. The mesenteric vessels were very fully laid open, but contained no clot. There was no previous history of illness or syphilis.

Mr. ARBUTHNOT LANE related an instance of Extensive Nævus of Peritoneum. The boy, aged seven, was said to have had a tumour in the right side of the abdomen at birth, which increased rapidly with the growth of the child, till it attained a considerable size. It fluctuated in parts, was apparently situated beneath the abdominal muscles and was not free in the abdominal cavity. The skin covering it was normal. The bulk could not be affected by pressure, nor could it be displaced from its position in the right side of the abdomen. As it extended to the umbilicus it was impossible to determine the condition of the kidney or its relationship to the tumour. Mr. Lane cut down on the tumour, which proved to be nævoid, containing large cysts filled with fluid blood. It extended backwards over the peritoneum, to which it was inseparably connected, and from which it apparently grew over the surface of the kidney and beneath the diaphragm over the liver, and in front to the middle line, at which limits it terminated gradually by becoming thin. It was thickest about the centre. It infiltrated somewhat the abdominal muscles which covered it. The peritoneal cavity

was opened, when its inner aspect was seen to be livid and to present rounded masses, some of which were partly pedunculated. All of the growth which could be got at was removed, only a thin layer being left on the outer surface of the peritoneum. The child became entirely collapsed from the considerable loss of blood consequent upon this part of the operation, its pulse becoming extremely feeble and about 170 a minute. This collapse was at once removed by the introduction into the circulation of a pint and a quarter of normal saline solution. The lad recovered without a bad symptom and now presented no sign of any recurrence of the tumour. The growth proved to be nævoid in structure.—Mr. SUTTON inquired if the growth was really a nævus, or if it was a very vascular nævo-lipoma. Lipomata were common in the subperitoneal tissue?—Mr. EVE had recently operated on a nævus of similar character at the London Hospital. It occurred in a young girl of sixteen, and involved the thigh near the knee. The history was indefinite and it was regarded at first as an encysted abscess in the knee-joint. An exploratory incision showed the tumour to be deep-seated, and on opening it there was a great gush of blood. It consisted of numerous cysts filled with blood connected by tissue of a spongy nævoid structure. It had spread into the muscles and had extended into the knee-joint, involving the deeper layer of the synovial membrane. The tumour extended upwards nearly to the junction of the upper with the middle third of the thigh. He removed it and the patient recovered without a bad symptom. He regarded the growth as a nævus, but would not be surprised if it contained sarcomatous structure.—Mr. BARKER asked if there were signs of lymphatic structure in the growth. He assisted Mr. Marshall to amputate the thigh for an enormous nævus in a child, and in this growth the lymphatics were as much involved as the veins.—Mr. GOULD inquired how great an extent of peritoneum was removed.—Mr. LANE, in reply, said that the growth contained no fatty tissue. He snipped off many grape-like masses which projected into the abdominal cavity, but left the intervening peritoneum which was covered with nævoid structure. There was no evidence of lymphatic enlargement.

Mr. CLUTTON read a paper on a case of Traumatic Aneurysm of the External Iliac Artery in a boy six years of age. On May 24th, 1891, Mr. Clutton was summoned by Messrs. Pitts and Holland of Chelmsford to see a case which they stated was a traumatic aneurysm of the external iliac artery. A boy, aged five years and a half, on April 29th, was presented with a pocket-knife, and in cutting some cake ran it into his abdomen. Mr. Pitts found a small punctured wound an inch and a half wide above the centre of Poupart's ligament. There was very little external bleeding, but a rounded deep-seated swelling could be felt beneath the wound. The next day emphysematous crackling could be detected for about eight inches around the wound, but no increase of the deeper swelling. On May 4th the swelling was first felt to pulsate, and at the same time a bruit was heard extending from this spot down to the femoral cavity. At the consultation on May 24th it was agreed there was an aneurysm of the external iliac artery above the origin of the epigastric. As there were no urgent symptoms it was thought best to wait for a few weeks in the hope of improving the collateral circulation. On June 15th the aneurysm was exposed and a kangaroo tendon applied to the external iliac artery immediately above the aneurysm. A similar ligature was also applied to the external iliac artery below the aneurysm, which was thus completely cut off from the circulation. The wound healed rapidly and the case made an uninterrupted recovery. There was no return of pulsation, no sign of gangrene, and the boy was now perfectly well. A small hard lump could be felt in the position of the original aneurysm and the pulsation of the femoral artery below Poupart's ligament was not so distinct as on the opposite side of the body.—Mr. W. H. BROWN had recently tied the external iliac artery from the front and found it very difficult to reach. He asked Mr. Clutton how it was that he first opened the peritoneum and then eventually tied the artery behind it.—Mr. CLUTTON, in reply, said that owing to the thinness of the child he found so little tissue intervening between the peritoneum and the vessel that he preferred before tying to strip up the membrane from the artery.

Mr. EVE brought forward a case of Cicatricial Stricture of the Œsophagus in which œsophagotomy was performed for removal of an impacted Symonds' tube and the stricture completely divided; there was no recurrence two years after the operation. The patient, a girl aged seventeen, came under his care in July, 1889, for a stricture of the œsophagus which resulted from swallowing some nitric acid twenty months previously. During this period she had been repeatedly treated by passage of bougies with constant recurrence of stricture. This was low down in the neck and admitted a No. 11 bougie. For the purpose of facilitating feeding and keeping up continuous dilatation a No. 7 Symonds' tube was passed and left in. On July 29th this was replaced by a No. 11 tube quite new. On July 31st the house surgeon, in attempting to remove the tube, pushed away the thread attached to it, leaving the tube impacted in the stricture. A prolonged and unsuccessful attempt to seize the tube with forceps having been made the same afternoon, œsophagotomy was performed on the left side on Aug. 3rd. The operation was performed as low as possible, but after incising the œsophagus it had to be drawn up with forceps before the tube could be reached and extracted. By still further drawing up the œsophagus the narrowed part was completely divided with scissors. The wound in the gullet was closed with sutures, but the internal wound was left open. The patient made a good recovery. She disappeared on Nov. 16th, and was not seen again till Nov., 1891, when she called at the hospital in answer to a letter from Mr. Eve. At this time, more than two years after the operation, she stated that she had been quite well in the interval and had no difficulty in swallowing whatever, a No. 18 bougie passed rapidly encountering no obstruction. He drew attention to the fact that the stricture was an exceedingly obstinate and resilient one before the operation, which might be claimed to have effected a permanent cure. The operation might be compared to external urethrotomy for stricture, but the tendency to recontraction appeared to be less in the case of the œsophagus than of the urethra. During the operation he was surprised at the mobility of the œsophagus in the direction of its long axis. This allowed of division of strictures very low in the neck, even impinging in the upper part of the thorax. After referring to the relative mortality of œsophagotomy and gastrostomy he pointed out that in cases of stricture of the œsophagus in the neck in which gastrostomy would otherwise be indicated, œsophagotomy fulfilled the same purpose, admitted of complete cure by division of stricture and was less fatal. Œsophagotomy might also be sometimes indicated in less severe cases of resilient stricture which had resisted other methods of treatment.—Mr. CLUTTON alluded to a case which he had recorded last session of a fibrous stricture in a child which had been treated by œsophagotomy, and in which, though he added much to the risk of the patient, he could not get the stricture up to the wound nor could he pass anything through it, being obliged in the end to do gastrostomy. He was inclined to think that œsophagotomy would not be of general use in this class of case.—Mr. MAKINS referred to a case of permeable stricture of the œsophagus in which it was difficult to pass bougies. It was treated by rapid dilatation by means of an instrument devised for the purpose much like that of Holt's for splitting urethral strictures. The result was strikingly successful.—Mr. EVE, in reply, said Mr. Clutton's case was not a parallel one because the stricture was not in the neck, but in the thorax. In cases of stricture at the lower part of the neck the result of this operation would be speculative. In the case he related the stricture was so resilient that he doubted if dilatation by any method would have been productive of permanent cure.

PATHOLOGICAL SOCIETY OF LONDON.

Myxœdema treated by injections of thyroid juice.—"Fat necrosis" associated with disease of the pancreas.—Congenital cystic disease of the scrotum.—Hepatic cirrhosis from cardiac valvular disease.—Unstriped myoma of penis.—Fibrous plaque from penis.—Specimens illustrating parasites of malignant disease.

THE first ordinary meeting of the Pathological Society for the present session was held on Oct. 18th, the president, Sir George Humphry, being in the chair.

Mr. HUBRY FENWICK showed two female patients who had been suffering from Myxœdema and who had been treated by injections of fresh thyroid juice. Both had improved and in both the injections had been followed by a gradual increase in the daily average of urine passed. Usually there was a large increase in the urine the day

following the injection; the amount then fell, but rose again. The character of this extra urine was essentially nervous in type. There was often a remarkable increase on excitement, such as the visiting of friends, and also during the period of menstruation, and these variations introduced fallacies into the investigation as to how far the injection acted as a diuretic. Control injections of water were without result; also in healthy people the thyroid juice usually proved negative. Mr. Fenwick, after reviewing the details of the cases, was inclined to believe that thyroid juice had feeble diuretic action; that the *rationale* of its renal action in myxœdema was the change it produced in the blood which permitted of an easier transudation of secretion by the kidneys. He founded the latter supposition on the very marked effect which the injections made in the growth of the hair, the secretion of sweat and the catamenial period. The tables of daily urine seemed to favour Mr. Fenwick's belief that congestion of the kidney arose in congestion of the pelvic viscera such as obtains in menstruation, coition &c.—The PRESIDENT asked the author if he believed that the improvement was due to mucin being passed by the kidney.—Dr. HADDEN said that during the summer he had injected two cases of myxœdema with thyroid juice, and the condition of urine which had been described did not exist in these cases. As regarded the existence of mucin in the urine, many cases had been analysed and no excess of mucin had been found in the tissues.—Dr. ARMAND RUFFER referred to two cases he had seen in Paris which had been injected; in neither was there any change in the urine, but they both suffered from intense headache as a result of injection. One was a young woman twenty-five years of age, who three months after the first injection was practically cured. The second case was an older woman, and the result of the treatment was also a striking therapeutic success.—Dr. A. MORISON said he had seen similar great benefit follow systematic massage; the urine increased and the patient improved for a time, but ultimately the massage lost its apparent effect and a fatal result ensued.

Dr. H. D. ROLLESTON showed specimens of "Fat Necrosis" in the fat of the mesentery, the great omentum, and in the appendices epiploicæ. The areas of necrosed fat were of an opaque white colour; in size they varied from a pin's head to half a split pea; in shape they were round or oval. They were not raised above the surface and were not surrounded by an area of congestion. The contents of these opaque spots gave the reactions of fat. Microscopically the areas were composed of fat cells distended with granular material, which was in places crystalline; the nuclei of the cells did not stain; these areas were immediately surrounded by normal fat cells; some of these areas of fat necrosis showed some small cell proliferation at their margin, but usually on one side only, and near a small vessel. The specimens were taken from two cases under Dr. Cavafy's care in St. George's Hospital; the first case was chronic, the second very acute. In the first case a woman aged fifty received a blow on the abdomen, which was followed at once by pain and the next day by severe vomiting, inaction of the bowels and collapse, simulating intestinal obstruction. The vomiting continued and slight diarrhœa came on. An abscess developed in the right hypochondrium three weeks and a half before death, which took place eighty days after the injury. Post mortem there was found an abscess in the head of the pancreas and fat necrosis in the subperitoneal fat. The liver was in a condition of fatty infiltration, but there was no necrosis of the fat globules. In the second case a man thirty years of age had suffered from an injury to his abdomen eighteen months previously, by a cart passing over him. Since then he had had severe attacks of abdominal pain. After his dinner he was suddenly seized with abdominal pain, vomiting and collapse, accompanied by constipation. Laparotomy was performed, and death occurred thirty-six hours afterwards. At the necropsy hæmorrhage was found round the pancreas, the origin of which was not manifest. There was disseminated fat necrosis in the abdomen, but there was no evidence of pancreatitis. In neither case was there any fat necrosis in the fat of the thighs or of the abdominal wall. The author said that there were two theories: (1) That the fat necrosis was a primary change in the fat of the fat cells, which set up a surrounding inflammation, which, becoming confluent around the pancreas, produced changes in, and often ultimately necrosis of, that organ (Langerhans). (2) That pancreatitis, hæmorrhagic, suppurative or gangrenous, or pancreatic hæmorrhage was the primary lesion which by extension produced fat necrosis (Fitz). Dr. Rolleston said that neither of these hypotheses was very satisfactory, and that he thought that the occurrence of fat necrosis might be explained as a trophic lesion, the result of the morbid process spreading from the pancreas to the solar plexus. This view was supported by the clinical symptoms, which were those of great disturbance of the sympathetic (vomiting, collapse and constipation), and the distribution of the fat necrosis would fit in with this view.—Professor ADAMI said that this disease was not necessarily associated with inflammation, and in the instances related he could confirm this from an examination of the author's specimens. Any small cells which were present near the necrosed areas were to be accounted for by the action of the fat necrosis as a foreign body. In the acuter case he thought that the fat necrosis was primary, and had existed before the lesion of the pancreas. He agreed that the nature of the change was probably nervous and trophic.—Dr. HALE WHITE said that hæmorrhage in the neighbourhood of the pancreas was rare. He asked for fuller clinical details of the case, and inquired as to the state of the intestines. These cases had been more than once mistaken for intestinal obstruction.—Dr. ROLLESTON, in reply, said that in neither case was there intestinal obstruction. In both there were some peritoneal adhesions, but they did not compress the gut.

Mr. EDGAR WILLETT showed two Congenital Cystic Tumours of the Scrotum. In each case the tumour was removed from the scrotum of a boy; the testis, though lying adjacent, was not adherent or affected; their pathology remained obscure. Microscopical sections were also shown.—Mr. TARGETT said that Mr. Eve had formerly shown a somewhat similar specimen as a dilatation of the ducts in connexion with the organ of Giraldès. It was from a boy aged seven, was congenital and consisted of a mass of fibrous tissue containing smooth-walled cysts. Another similar case he had recently seen in a child aged five. He regarded them as degenerated nævi, for the cysts had no epithelial lining and some of them contained blood-clot.—Mr. BOWLBY had seen similar specimens both in the scrotum and in Nuck's canal in the female. He believed that they were not congenital nævi; the material obtained from the cysts was a clear serous fluid. They were precisely similar both to the naked eye and microscopically to the growths often found in the neck.—Dr. NORMAN DALTON said that some years ago he had examined one of the congenital tumours of the neck by staining it in the recent state with nitrate of silver. He then found that the lining of the spaces was of epitheloid character, such as that which might be found lining an old nævus or a lymphatic cyst.—Mr. WILLETT, in reply, said that the cysts in these cases were quite separate from each other, which he thought would not be the case if it were a degenerated nævus.

Dr. PERCY KIDD showed specimens of Cirrhosis of the Liver, Pancreas and Kidney from Obstructive Valvular Disease of the Heart. He said it was a case of severe long-standing valvular disease of the heart, with enlargement of the liver, terminating with anasarca, ascites and hydrothorax. At the necropsy it was found that the liver was enlarged and very hard, but smooth on the surface. The hepatic veins were dilated and thickened. The heart showed an extreme degree of stenosis of all four valvular orifices, and was greatly hypertrophied and dilated. The pancreas and kidneys were also greatly indurated. Microscopical examination disclosed undoubted cirrhosis of the liver, pancreas and kidney. The etiology of the case was discussed and reasons were given for attributing the cirrhotic change in these organs to the extreme degree of cardiac obstruction. No evidence of alcoholism could be obtained. The lungs were in a condition of brown induration.

Mr. SHATTOCK showed for Mr. Sydney Jones an Unstriped Myoma of the Penis. There was a thickening of the fibrous investment of the corpus cavernosum, with a small gritty plate lying in its centre. This he had carefully analysed to see if it were of gouty nature, but it contained no trace of uric acid and was composed of phosphate of magnesium and lime. Beneath the fibrous thickening there was a remarkable increase in the involuntary muscle fibre of the trabeculæ. There was nothing in the history of the case to give a clue as to its nature. There was no history of syphilis or of gout.

Mr. EDGAR WILLETT showed a Small Calcareous Plaque which had been removed from beneath the skin of the dorsum of the penis of an elderly gentleman. It apparently arose in a part of the fibrous tunic of the penis. It had been noticed for two years and a half, and its substance was, as in the preceding case, mainly composed of unstriped muscle fibre.

Dr. HEBB showed some specimens illustrating the parasites of malignant disease. They were taken from the body of a

young man twenty-six years of age, who died of ascites and jaundice. There was found a diffuse subperitoneal fibrosis, and there was the scar of an old ulcer an inch or so from the cardiac end of the stomach on the lesser curvature. A microscopical examination of the subperitoneal fibrous inflammatory deposit showed it to contain giant cells, which were for the most part mono-nucleated and contained spheroidal bodies. In the centre of each was an aggregation of granular matter and from these granules lines, also granular, radiated to the periphery. In other specimens the spheroidal bodies were larger, with a circular centre like a nucleus, but with granular contents. These bodies had a distinct capsule and they stained quite differently from a tissue nucleus. He showed them as specimens occurring quite independently of malignant disease, but in an ordinary chronic inflammatory growth. He had stained them according to the method recommended by Dr. Russell two years ago.

The following card specimens were shown :—

Dr. PERCY KIDD : Embolic Aneurysm of the Pulmonary Artery.

Dr. E. C. PERRY : (1) Perforating Ulcer of the Duodenum; (2) Fatal Intra-pleural Hæmorrhage in Pneumonia.

Notices of Books.

The Journal of Pathology and Bacteriology. No. 2. October, 1892. Edinburgh and London : Young J. Pentland.—The second number of this new and high-class periodical contains matter of even more interest than the first, and well justifies the undertaking. Dr. R. Muir of the University of Edinburgh contributes a paper on Leucocythæmia, consisting of a careful study of the blood by modern methods. His observations tend to the conclusion that the changes in this disease depend on an "excessive and indefinite proliferation of a certain kind of cell," but he abstains from constructing any more definite hypothesis until he has had further opportunity for the study of the subject. Mr. A. A. Kanthack of Cambridge University writes on Madura Disease (Mycetoma) and Actinomycosis, in which he clearly establishes the identity between them—an identity suspected by Vandyke Carter, to whom is owing much of our knowledge of the pathology of mycetoma. Mr. Rubert Boyce of University College, London, describes the characters of an example of Aspergillæ Pneumonomycosis which occurred in a subject of cardiac disease, and to the unaided eye resembled small white bodies within a few bronchitic cavities at the apex of the lung. Dr. T. Haldane and Mr. J. L. Smith of the University of Oxford contribute a paper of considerable importance upon the Physiological Effects of Air vitiated by Respiration, in which they show that these effects (hyperpnœa, headache &c.) are due mainly to excess of carbonic acid and deficiency of oxygen rather than to any special poison. Dr. Archibald Garrod writes on Hæmatoporphyrin as a Urinary Pigment in Disease, based on an extended examination of a variety of cases. A paper of some elaboration, and embracing a topic of great interest at the present time, is that on some Parasitic Protozoa found in Cancerous Tumours by Drs. Amand Ruffer and T. H. Walker. It opens with a history of previous investigations on the subject, and is itself a most important pathological contribution, which goes far to establish the fact of the parasitic nature of cancer. Dr. Joseph Coats describes the Pathology of Sudamina and Miliaria, in which the histological examination of the skin from a fatal case of rheumatism leads to the conclusion that these states are essentially inflammatory, excited probably by poison excreted in the sweat. Mr. Rubert Boyce and Mr. Cecil F. Beadles describe fully the features, macroscopical and microscopical, of a case of Myxœdema in which there was enlargement of the pituitary body, and their paper as well as the observations of others point to some correlation between the thyroid body and the hypophysis cerebri. The latter, it is well known, is generally found enlarged in acromegaly. Mr. E. H. Hankin has a paper on the Method of testing the Bactericidal Power of Alexin Solutions ; and the number closes with a description of Papier-mâché Casts of Pathological Specimens by Mr. C. W. Cathcart, and one on a Rapid Method of Dehydrating Tissues by Mr. G. L. Cheatle. The excellence of the illustrative plates, which are numerous, is very great, and altogether we think that the journal does credit to the British School of Pathology.

Trattato d'Igiene Pubblica. Del Dottore CARLO RUATA. Vol. I. Citta di Castello. 1892.—We have now so many treatises on public health that Dr. Carlo Ruata's work on the same subject is likely to be less resorted to than it otherwise would have been. But it has qualities of distinct merit which place it amongst the foremost of such works ; and if action is taken on the principles which are advocated in it in those countries where the Italian language is spoken the result will be a distinct saving in loss of life due to preventable causes and a greater capacity for remunerative labour amongst those who are spared from the debilitating influence of avoidable sickness. The first volume issued deals with general considerations. It takes up the subjects of vaccination and other preventive inoculations, of the isolation and disinfection called for in infectious disease ; and it deals on what we are inclined to regard as very much our English lines—with the question of quarantine. The sanitary cordons in Italy in 1884 are set out as typical of an error of administration. Non-infectious maladies which are affected by public health considerations are next dealt with, as are also questions of vital statistics. The scope and character of sanitary administration generally and of the existing Italian law are next considered, and the volume concludes with some valuable considerations which go to show how public prosperity is dependent on public health. In this and in other parts of the volume Dr. Ruata pays many a compliment to English sanitary work, but he also takes some of his examples of failure from our records. Thus he refers to Dr. Thresh's excellent account of the injurious influence of the bad housing of the population in Ancoats ; and since we are involved in that which is bad as well as that which is good, we can the more freely express the opinion that this last chapter should be read by all Italians who are patriotic enough to take interest in the welfare of their country, and since this doubtless includes the whole nation, we trust the volume will have a wide circulation quite beyond professional circles.

The Sheffield Medical Journal, Vol. I., Part I. Edited by SIMEON SNELL, F.R.C.S. Edin. Sheffield : Pawson and Brailsford.—It speaks well for the pursuit of scientific medicine in this country that the practitioners in so many of our leading provincial towns should be willing to undertake the responsible task of issuing a medical journal. To Bristol, Birmingham, Liverpool and Manchester may now be added Sheffield ; and this new journal, which is to be a "Quarterly Review of the Medical Sciences for Yorkshire and adjoining Counties," seems likely to prove a fitting compeer to those above indicated. The general plan of the journal is that followed in most publications of the sort, notably the long-established *American Journal of the Medical Sciences.* Thus it consists in the first place of original articles, next of abstracts and summaries of literary contributions to medicine, surgery and therapeutics, then of reviews and notices of books, new drugs, instruments &c., and medical news. The first article, by the editor, is on Accuracy in Observation and the After History of Cases, being the Presidential Address to the Sheffield Medico-Chirurgical Society, delivered on the 13th inst. Mr. Dale Jones and Dr. Norman Walker relate an Unusual Case of Tuberculosis of the Skin, well illustrated by lithographic reproduction of photographs of the general and histological characters of the case. Dr. W. Dyson describes a well-marked case of Myxœdema in the Male, and another case of Myxœdema, with an account (illus-

trated) of the changes in the thyroid, is contributed by Mr. R. J. Pye-Smith and Dr. A. J. Hall. Mr. Arthur Jackson, under the heading "Chapters in Local Medical History," commences a description of the history of the Sheffield General Infirmary. The abstracts and summaries are well selected, and the reviews and notices include careful criticisms of such works as Wilson Fox's Treatise and Hack Tuke's Dictionary of Psychological Medicine.

The Quarterly Journal of Microscopical Science. Edited by Professors RAY LANKESTER, KLEIN, SEDGWICK and MILNES MARSHALL. No. CXXXIII. August, 1892. London: J. & A. Churchill.—This Part contains the two following Memoirs: 1. The Anatomy of Peritastomum Teretiusculum, a parasite found in the lung of the copper-headed snake (*Hoplocephalus superbus*) of Victoria, by W. Baldwin Spencer, Professor of Biology in the University of Melbourne, with nine plates. 2. The Minute Structure of the Gills of Palæmonetes Varians, by Edgar J. Allan, B.Sc. University College, London, with a plate.

In the September number of the *Annales de l'Institut Pasteur* Messrs. E. Hankin and F. F. Westbrook, in their paper entitled "Sur les Albumoses et les Toxalbumines Sécrétées par le Bacille Charbonneux," again take up the subject of the albumoses and the toxalbumins secreted by the anthrax bacillus. Following up the experiments of Patermann, Hankin, Brieger and Fraenkel, and the earlier observations of Sidney Martin, they attempt to bring into harmony the somewhat conflicting results obtained by those various experimenters, and they take up the position formerly held by Martin that there are formed during the growth of the anthrax bacillus, in certain media, albumoses which are not toxic to susceptible animals, but which exert a distinct protective influence against the attacks of the anthrax bacillus, and to: albumins which possess a distinct toxic power, but have little protective virtue. They found, for instance, that when they produce the albumose directly—that is, by allowing the anthrax bacillus to act on fibrin ferment in bouillon at a low temperature, that such albumose, when injected in small doses into a mouse, confers immunity, but that when they allow a proteolitic ferment to be formed by the anthrax bacillus (this takes place especially at higher temperatures) they cannot obtain any protection; whilst the products that are formed have the toxic action above referred to. They found, moreover, that after separating the albumoses from the purest commercial peptone obtainable that the remaining pure peptone, if acted upon by the anthrax bacillus at a comparatively low temperature, would also yield a protective albumose, though they were not able to obtain it in sufficient quantity or in sufficient activity to produce complete immunity in mice. It is interesting to note that the albumoses do not cause symptoms of poisoning in animals susceptible to anthrax, such as mice, young rabbits and rats &c., whilst it is distinctly poisonous even in small doses to non-susceptible animals, such as frogs and old rats. The results of these experiments are of very great interest, though they go directly against the results obtained by several observers who have found that so long as what may be called the fundamental molecule is present in any series of products the poisonous activity is present, though often necessarily in somewhat varying degree, and it would be expected that similar protective properties would be bound up in this fundamental molecule. However, as the relation of chemical composition to physiological action has not yet been completely or satisfactorily worked out in regard to the better-known poisons, it may be some time before a knowledge of the same relationship is obtained with respect to these complicated albumoses and toxalbumins with which the bacteriologist has to work.

IN the October number of the *Veterinarian* Professor Fred. Smith, M.R.C.V.S., F.I.C., of the Army Veterinary School, Aldershot, continues his article on Veterinary Hygiene, taking up specially ventilation, drainage and individual hygiene, clipping, shoeing and feeding, and concluding this part of his article with the treatment of calves used for the production of vaccine matter. An editorial article on the diagnosis of tubercle by the use of tuberculin leads us to believe that this substance as a diagnostic agent is not so valuable as at one time it was anticipated it might be. Professor Wortley Axe contributes a paper on "Pleuro-pneumonia: Slaughter justified." An account of the meeting of the veterinary profession held to consider the amendment of the law relating to glanders and farcy is given, together with resolutions adopted and to be forwarded to the Board of Agriculture and the County Council. These recommend amendment and consolidation of the law, immediate and compulsory slaughter, systematic inspection, an increase in the number of veterinary inspectors, compensation and closure of water troughs. The number is completed with accounts of the meetings of the National Veterinary Association, Midland Counties Veterinary Medical Association and South Durham and North Yorkshire Veterinary Medical Association.

Locke's Annual Register.—This publication, which the compiler states in his preface will be issued annually, is a work likely to be of use to men of all professions. The work, which is in two volumes, contains, in a convenient form for reference, all notices of births, marriages and deaths advertised throughout the United Kingdom in the leading newspapers. A special feature of the publication is the double indexing of marriages (1) under bride's maiden name and (2) under bridegroom's name. Part II. deals with deaths.

LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY (LIMITED).

A MEETING of the council of this Society was held on Tuesday, Oct. 4th, and the chair was occupied consecutively by Mr. Bruce Clarke, Mr. Balding, J.P., and Mr. J. Hutchinson. Dr. Cleveland and Mr. Musgrave were elected vice-presidents of the Society. Ninety-eight new members were enrolled.

The following divisions were formally recognised and their respective officers elected—viz., Cornwall: President, Edward Sharp, J.P., M.R.C.S., Truro: hon. secretary, George Frederick Helm, M.A. Cantab., M.D. T.C.D., F.R.C.S. Eng., The Greenfield, Marazion. South London: President, J. W. J. Oswald, M.D. St. And., F.R.C.S. & L.R.C.P. Edin., Kennington-road; hon. secretary, John P. Henry, M.D., B.Ch., L.R.C.P.I., Brook House, High-street, Lewisham, S.E. South-east London: President, Arthur Roper, M.D. St. And., M.R.C.S., Lewisham-hill; hon. secretary, S. Noy Scott, L.R.C.P. Lond., M.R.C.S., Lewisham-hill, S.E. Somerset: President, Thomas Cole, M.D., F.R.C.P. Lond., Bath; hon. secretary, Hugh Lane, L.R.C.P. Edin., The Circus, Bath. Northumberland: President, Walter Ridley, M.S., F.R.C.S. Eng. Newcastle-on-Tyne; hon. secretary, Francis W. Clark, L.R.C.P. Lond., D.P.H. Camb., Dispensary, Newcastle-on-Tyne.

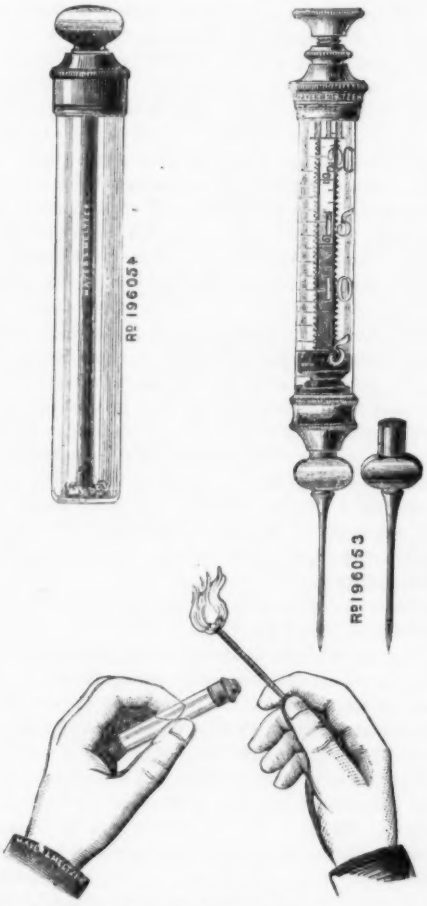
It was unanimously resolved that duly qualified and registered medical ladies should be eligible as members of the Society. The secretaries reported, with regard to the unjust censures of coroners' juries on medical men, that while condemnatory riders to coroners' verdicts were quite irregular, yet it appeared that such statements by coroners' juries were in law regarded as privileged, as also the publication of these in *bonâ-fide* reports by newspapers. Mr. Balding thought that some legal remedy for the present undesirable state of affairs might be found. It was resolved that Mr. Balding, J.P., and Dr. Cooper Rose, be requested to confer on the subject and to report to a subsequent meeting of the council.

IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.—The dinner of the members and friends of this Association is announced to take place at the Holborn Restaurant on Nov. 2nd.

New Inventions.

ANTISEPTIC HYPODERMIC SYRINGE.

WE owe to Messrs. Meyer and Meltzer the invention of a hypodermic syringe capable of being thoroughly sterilised after use by the best of all possible means—viz., the application of heat. This is effected by means of a small spirit lamp included in the same case as the syringe, the needle of the latter being removable. The needle is made of an alloy, so that when heated it does not lose its keen point, as happens



with an ordinary steel needle. Another improvement consists in the needle being of such a shape as to accurately fit the nozzle of the syringe and to be in contact with the piston, thus enabling the quantity injected to be accurately measured. It is needless to emphasise the importance of these instruments being kept perfectly clean and the value as well as simplicity of the means adopted to that end in the present instrument.

NEW "ORTHONEMIC" ABDOMINAL BELT.

MESSRS. SALT AND SONS of Corporation-street, Birmingham, have submitted to us for examination a new form of abdominal belt which they have designated as above, and the construction of which exhibits exceptional features. Two illustrations of the belt are given, a front and a side view. From these it will be seen that the diagonally arranged front elastic webs (separated by the central whalebone) follow the direction of the external abdominal muscle, and supply the *lifting* support so desirable in these appliances, transmitting the weight of the abdomen to the upper portion of the hips, whence it is distributed by the horizontal side webs equably towards the back, the lacing being also elastic. The transverse top and bottom webs in the front clip the body and retain the belt in

its proper position, thus dispensing with perineal straps which cause so much discomfort. The complicated straps and bands added to most belts to assist their fit are avoided, and the appliance is consequently very simple, the arrangement of the elastic fibres causing it to fit perfectly in every way. The belt appears to be well calculated for increased efficiency, and at the same time an acceptable advance towards simplicity of application.

VACCINATION GRANT.—Mr. John P. Balbirnie, L.R.C.P., L.R.C.S. Edin., has been awarded by the Local Government Board a grant of £7 6s., as public vaccinator for the Staveley district of the Kendal Union.

QUEEN VICTORIA'S JUBILEE INSTITUTE FOR NURSES.—The report of this institute for 1891 states that the number of nurses trained during the past year and now at work in different places is 19. At the present time there are 27 probationers, 12 of whom are receiving hospital training. Since the commencement of the work 32 nurses have been trained under the institute. The number of nurses under the immediate supervision of the institute in connexion with associations affiliated to it is about 101. The total number of nurses upon the roll is 167, and of these 132 have been added during the past year. Applications are being steadily made to affiliate kindred nursing associations. There are now 32 nursing associations which have been affiliated in England and Wales. All associations are inspected as to their nursing arrangements and the qualifications of the nurses before the request to be affiliated is acceded to, and periodically afterwards. Berkshire, Devonshire, Essex, Gloucestershire, Hampshire, Kent, Norfolk, Somerset, Surrey, Worcestershire and Yorkshire have established associations under the same rules and regulations as the institute. There are in all 34 nurses engaged in rural nursing work in the different counties above named.

THE LANCET.

LONDON: SATURDAY, OCTOBER 22, 1892.

IN his admirable "History of England in the Eighteenth Century," Mr. LECKY has the following passage:—"Hardly any other of the great branches of human knowledge is at present so backward, tentative and empirical as medicine, and there is not much doubt that the law of supply and demand is a main cause of the defect. Almost all the finer intellects which are devoted to this subject are turned away from independent investigations to the lucrative paths of professional practice; their time is engrossed with cases most of which could be treated quite as well by men of inferior capacity, and they do little or nothing to enlarge the bounds of our knowledge." Criticism from so eminently judicious and moderate a writer as Mr. LECKY is entitled to respectful consideration, even when it trenches on questions outside the range of his own life studies, and we propose to consider how far the above remarks are well founded, and whether any conclusions of value can be drawn from them.

In the historian's view two facts stand out prominently regarding medical science: first, that its progress is unduly slow compared with that of the other great departments of human knowledge; and, secondly, that this slow rate of progress is attributable to the absorption of all the abler intellects in the routine of private practice and their consequent inability to devote sufficient time and effort to original research. Now we do not pretend that the progress of medicine has ever been rapid. It is perhaps the most ancient of the sciences. In all probability, long before primeval man had begun to note with intelligence the movements of the heavenly bodies, or to develop any department of the physical sciences, the hard necessities of a state of constant warfare had compelled the direction of his attention to such subjects as the treatment of wounds and the relief of pain. Botany probably arose partly from the search for articles of food and partly from a desire to discover herbal remedies for disease. Medicine is thus long prehistoric, and its origin is lost in the mists of extreme antiquity. Its progress seems to have followed two main directions: first, that of the theorising school, of whom GALEN is the best ancient representative, whose prevailing characteristic was a desire to bring all the phenomena of disease under a few wide generalisations and far-reaching formulæ; and, secondly, the empirical school, who simply sought remedies for certain ailments without much regard to the *rationale* of their proceedings. Whilst most of the ancient theories about the constitution of the human body and the action of remedies have been proved to be false, experience has shown that some of the ancient empirical rules regarding treatment possess a permanent usefulness and validity. Thus much of the teaching of HIPPOCRATES concerning food, exercise, diet &c. still holds good, even in the light of the most advanced modern knowledge.

This distinction helps to explain what is a most patent but at first sight somewhat puzzling fact—viz., that the Baconian philosophy and the general adoption of habits of systematised observation and careful induction, which so revolutionised and accelerated the progress of the physical sciences, produced a vastly smaller effect in the field of medical science. Medical science, in fact, owes much more to empirical observation and happy accident than is generally admitted. Such discoveries as the therapeutic virtues of mercury in syphilis or of cinchona in ague probably arose in this way, and it is quite out of our power voluntarily to create that combination of circumstances likely to afford similar fruitful results. The power of creating the special conditions most favourable to observation—of "varying the circumstances," as logicians say—of bringing into play the logical "method of difference" is, in the field of medicine, much restricted. Lack of material in some cases acts as a bar; in others the promptings of humanity restrain us. In fact, the more we reflect upon the subject the more we shall be convinced that any analogy between the progress of medicine and of the physical sciences is wholly illusory. In the first place no science dealing with life can hope to rival in completeness and in rapidity of progress the science of the not-living. A comparison between, say, physiology and mechanics is perfectly futile and wholly uninstructive. The mysterious element of life, so subtle, so pervasive, so potent and yet so inscrutable, increases to an altogether incalculable degree the difficulties of observation and induction. When philosophers have determined what life is, what mind is, where the influence of mind or body begins and ends, they will be in a position fairly to reproach with backwardness and slowness of progress a science which has so largely to deal with these difficult questions, and which, amidst the painful exigencies of disease and the claims of suffering humanity, cannot always stop to bring its practice precisely into line with its theories.

The factor of disease adds new and manifold difficulties. If normal physiological life presents much that is perplexing, much more is this true of abnormal and pathological life. Probably no two cases of disease were ever exactly alike. The response of the organism to the irritation of disease always varies, and often within very wide limits. The play of hope and fear, of strength and feebleness of will, of acquiescence in and resistance to medical advice and authority, is never ceasing, and introduces elements of altogether incalculable complexity. We must take our science with its necessary and intrinsic limitations, and, perhaps all things considered, the real wonder is not the slowness of medical progress or the fallibility of medical knowledge, but the almost unerring certainty of insight which is the characteristic of our greatest doctors.

While thus demurring to the principles of comparison implied in Mr. LECKY'S remarks, we are quite in accord with him regarding the necessity of a fair share of the best medical intellect being devoted to the work of original research. Such an end can only be achieved by national endowments or private benevolence. A beginning has no doubt been made in respect of such subjects as anatomy, physiology and pathology, in which chairs of sufficient value exist to enable their occupants to devote themselves entirely to their study. But no chair of medicine, surgery, gynæcology or kindred subjects exists with an endowment suffi-

cient to enable its occupant to relinquish private practice and devote himself wholly to original research. It is not too much to hope that the day will come when this gap will be filled up. Many tasks might well be assigned to the occupants of these chairs, such, for example, as the determination of the real practical value of the hosts of new remedies which are now constantly brought under our notice. Most of these are worthless, but it would be a great misfortune to humanity if through lack of sufficient care and thought any really useful additions to our therapeutic armamentarium were thrown aside with the useless.

IT is well for medical men to study the diseases of other races than their own. Civilisation is apt to be regarded in these days as not an unmixed blessing, and one of the chief charges brought against it is that it makes us more sensitive and develops many diseases and ailments which our more savage fellow creatures escape. The development of nerves, with all their possibilities of pain and multiplied disorder, is a responsibility especially laid at the door of civilised life with all its luxurious provisions for comfort and enjoyment. Perhaps these ideas are accepted a little too readily. It is certain that we are spared some diseases to which less favoured races are subject. During the course of the session of 1890 of the Clinical Society Dr. STEPHEN MACKENZIE brought to the notice of its members the case of a much-respected native of the Congo who laboured under "negro lethargy," or "sleeping sickness," a disease described by Dr. WINTERBOTTOM and later writers, and which in many villages on the Congo is very fatal, although European races never suffer from it. The non-exemption from sickness and ailment of savage races is illustrated in an interesting way in two papers in the *Medical Record* of New York of Sept. 17th and 24th respectively, by Dr. HOLDER, Assistant Professor of Physiology in the Memphis Medical College and formerly Agency Physician of the Crow Reservation, Montana, of which we may give our readers some account. The severity of eruptive diseases in such backward races has been often shown. The same fact is illustrated by Dr. HOLDER in respect of both small-pox and measles. In 1873 small-pox played sad havoc among some Indian tribes; one-ninth of the Santee Sioux of Nebraska died, and in 1878 over one-fifth of the Mohave and Chimehuevis Indians of Arizona succumbed to the disease. Vaccination has been practised of late years, with the result that no epidemic has raged among any Indian tribe; but they hold small-pox in mortal dread, and a case of it or the report of its occurrence will cause greater consternation and stampede than a hostile invasion. Few tribes are without the traces or its ravages in pitted faces and sightless eyes. Measles is a fatal disease—it is very fatal in some tribes—even when the cases are carefully nursed by the *employés* of the Agency; but much depends on shelter and care. Thus Dr. TREON, of the Crow Creek Agency, in a severe epidemic in 1888 lost 1 in 15 of the cases treated in camp; but of 130 cases treated in the boarding school, where favourable surroundings and good nursing could be procured, not one was lost. Dr. TREON made the curious observation that the stage of incubation was more protracted than among the whites, and that there was a greater tendency to severe capillary bronchitis. In certain Sioux Reservations in Dakota measles has been shown to be a steady cause of declining population. Epidemics of whooping-cough usually follow measles. Mumps occur frequently, and take a course similar to that among whites, including frequently metastasis to the testicle. Erysipelas occurred in 2065 Indians out of 500,000. Dr. HOLDER'S cases were generally mild, and unconnected with traumatism. In the first cases his attention was drawn to enlarged cervical glands. The next complaint noticed (constipation) is one often thought to be the monopoly of civilised people, living in easy circumstances and pampered ways. Dr. HOLDER finds the Indians universally and persistently constipated; indeed he comes to the conclusion that this is an ailment common to the human family. The Indians do not understand the utility of a medicine which does not either purge or produce vomiting. Like Sir HENRY HOLLAND, Dr. HOLDER moralises on the use and abuse of purgatives. From their wide use he draws the double inference that thorough intestinal evacuations must be beneficial in many different ailments, and that medical men should intelligently combat the enormous abuse of such medicines. The notorious laziness and inertia of the Indian, except under great motives to activity, may account for his constipation, but Dr. HOLDER attributes it partly to diminished animal food and the increased use of bread, made of bolted flour and potatoes, both cooked with grease. He thinks that calomel acts with unusual violence on Indians, though he has often had to give from three to five drops of croton oil to secure a good evacuation. Conjunctivitis is common, and is attributed largely to the smoke of the huts, to the paint applied to the skin and eyelashes by the Indians, and sometimes to the glare of the sun on the snow. Blindness is not common among the Indians, though it results, as we have seen above, from small-pox, as has too often happened in more civilised countries. In fractures, and even compound fractures, the Indian makes a fend for himself with a fracture-box filled with dung, or splints of a plastic clay. In Dr. HOLDER'S experience fractures unite readily, but trivial wounds do not heal by the first intention. Skin diseases are observed, including vitiligo, which is "not rare." Another proof of the amount of "human nature" that there is in Indians is the testimony of Dr. HOLDER and others to the frequency of hysteria among them. They suffer also from epilepsy and hysterical epilepsy; and trance epilepsy is said to be common. Insanity in an acute form is very rare. The teeth of Indians are nearly always perfect, but those of half-breeds are very inferior. Earache and otorrhœa are frequently met with. Valvular heart lesions were found with great frequency among Indian school children. The Indians have the same sense of shame and discredit in contracting venereal disease that more civilised people have, and are in the habit of attributing it to spider bites, though they admit that they never saw the spider. Though so like his fellow creature in most of his complaints, the Indian is generally considered stoical. This is probably due to his having less acute sensation of pain. In spite of this, he is fascinated with anæsthesia. Dr. HOLDER makes some interesting observations on the use of intoxicants. He says he has not the slightest evidence that they are used by any north-west tribe unless supplied by white men—another judgment that fastens on the white races the tremendous responsibility

of alcoholism among savage or barbarous people. Tobacco is not much smoked by the Indian, but smoking, "chiefly of a kind of ground laurel resembling uva ursi," is a social and religious ceremony of great importance and interest. The medicine man is rather divested of his medical character by Dr. HOLDER and made to appear as a sort of charmer or magician, being priest or saviour, rather than physician. Even the few that can be called native doctors depend more on the song and the drum than on drugs. They are ignorant even of herbs and are in every way a great hindrance to the success of the Government physician. Still, Dr. HOLDER wisely sees that they can only be superseded gradually and by the Government well supporting efficient men when they find them. Bloodletting is roughly practised, as also a kind of actual cautery with burnt wood. The "sweat house" is an institution in Indian life in which a sort of Turkish bath is extemporised, after which the Indian generally goes out into the snow, with which he rubs himself, and with impunity, even when the temperature is below zero. Here we see a difference which has not been so apparent in the ailments of the races. There is one disease, however, which is conspicuous by its absence in Dr. HOLDER'S Indian nosology—and that is gout.

AMONG other useful measures passed before the close of the last Parliament was that of the Coroners Act. Prior to this becoming law, which it did on June 28th, a deputy coroner could not act after the death of the coroner whose deputy he was, and every borough coroner was obliged to appoint as his deputy a barrister or solicitor. Both these anomalies have been removed by the Act of 1892. It is a short Act, containing only three clauses. The first contains eight sections, and the first section provides that every coroner, whether for a county or a borough, shall appoint by writing under his hand a fit person, approved by the chairman or mayor of the council who appointed the coroner, not being an alderman or councillor of such council, to be his deputy. This, therefore, repeals that clause of the Municipal Corporations Act which limited the appointment to solicitors or barristers, and removes a great injustice to the medical profession. It was manifestly absurd that though a borough coroner might be a medical one his deputy could not. This odious restriction did not obtain in the case of county coroners; but as the larger proportion of these are solicitors it is only natural that they should appoint members of their own profession. We have already noticed a happy exception to this in the case of the late coroner for the Wrexham division of Denbigh, the late Mr. THELWALL, who appointed as his deputy Dr. EDWARD DAVIES, now a candidate for the vacant office. The next two sections provide for necessary formalities which need not be detailed; but the fourth section is very important, since it provides that the deputy of a coroner shall, notwithstanding the coroner vacates his office by death or otherwise, continue in office until a new deputy is appointed, and shall act as the coroner while the office is so vacant in like manner as during the illness of the coroner. It is very marvellous that such a provision was not made long ago. The death of a coroner rendered it necessary for one of the coroners of the adjacent districts to perform his duties in addition to his own, to the greatest inconvenience of all concerned. In the city of London the Town Clerk had to act. But this was not all the evil resulting from such a condition of matters. The appointment of a new coroner had to be filled up within ten days from the death of his predecessor, which led to hasty and ill-considered elections. This is changed, since the sixth section provides that "a council may postpone the appointment of a coroner to fill a vacancy, either generally or in any particular case, for a period not exceeding three months from the date at which that vacancy occurs." Thus another injustice to the medical profession, will be, it is hoped, removed, as the interval of three months will enable a medical candidate to lay his claims for the office fairly and fully before the council and the public. Too often the death of a legal coroner has been followed by one of his brother solicitors being elected to the office, for no other apparent reason than because he was a solicitor. The claims of medical candidates for the office are so incontestable that only a reasonable interval is required for their admission by the council who have to appoint. This Act is not quite so well known as it ought to be, and we hope all medical coroners will secure a copy of it. There are, we believe, fourteen medical coroners for boroughs, and we hope in due course to hear of at least an equal number of medical deputies being appointed. Possibly also some legal coroners may be as generous as the late Mr. THELWALL. They will have this justification—that an experienced medical practitioner is likely to make a better deputy coroner than a solicitor or barrister who has had no experience whatever.

Annotations.

"Ne quid nimis."

ST. LUKE'S DAY AT THE ROYAL COLLEGE OF PHYSICIANS.

THE Harveian Oration was delivered at the Royal College of Physicians on Tuesday last (Oct. 18th) by Dr. Bridges, before a distinguished auditory, and was generally pronounced to be an admirable and most appropriate address, the text of which we shall publish next week. In the evening the President and Fellows dined in the College, the guests being the Lord Bishop of Rochester, Lord Sandhurst, the Right Hon. Mr. Justice Denman, the Right Hon. H. H. Fowler, President of the Local Government Board; Admiral Sir Edward Inglefield, K.C.B.; Sir Charles Russell, Q.C., M.P., Attorney-General; Dr. John Peile, Vice-Chancellor of the University of Cambridge; Sir James Paget, Bart., Vice-Chancellor of the University of London; the Rev. G. Salmon, D.D., Provost of Trinity College, Dublin; Mr. T. Bryant, President of the Royal College of Surgeons; Sir Joseph Lister, Bart.; Sir Hugh Owen, K.C.B.; W. E. H. Lecky, Esq.; J. Macvicar Anderson, Esq., President, Royal Institute of British Architects; the Very Rev. Francis Paget, D.D., Dean of Christ Church; Sir Albert Rollit, M.P.; Sir W. H. Flower, K.C.B.; Sir Archibald Geikie, President of the British Association; and Frederic Harrison, Esq. The toast list was very full. The President proposed "The Health of the Queen," and then gave the toast of "The Church," which was responded to by the Bishop of Rochester. Dr. Priestley proposed "Her Majesty's Government," for whom the President of the Local Government Board replied. The "Army, Navy and Reserve Forces"

was given by Dr. Broadbent and responded to by Admiral Inglefield. Dr. Dickinson, Senior Censor, proposed "Her Majesty's Judges," which was acknowledged by Mr. Justice Denman. "The Universities" was proposed by Sir Dyce Duckworth, Treasurer of the College, and acknowledged by the Provost of Trinity College, Dublin. The toast of "Literature and Art" was given by Dr. Russell Reynolds and responded to by Mr. Lecky; that of "Science" by Dr. Pye-Smith, to which Sir A. Geikie replied. "The Health of the Harveian Orator" was proposed by Dr. W. Ogle and responded to by Dr. Bridges. The company did not separate until a late hour.

COMBINATION OF MEDICAL MEN TO SECURE PROPER PAYMENT.

COMBINATION seems the order of the day and medical men seem to be catching the infection of it. They have been so long-suffering and patient under a tacit system of non-payment or under-payment by the public that it has come about that while everybody is paid they are left unpaid or are paid last. As we announced in our last issue, the profession in Coatbridge have determined in justice to themselves and all honest people to frame a minimum scale of charges and to issue quarterly a black list of defaulters, or of those who evade the payment of medical debts by the mean system of going from one doctor to another. It is a pity that such means should be necessary. But we are not disposed any longer to blame an honourable profession, confessedly treated very badly. A local paper, commenting on such a state of matters, traces it finally to certain members of the profession who undersell their brethren and demoralise the public. There is some truth in this, and delinquent members of the profession will only have themselves to blame if they are defined and discountenanced. Such a procedure will have no terrors for honourable men in practice, nor for the honest poor, who do what they can to meet the modest charges of their best friend, the faithful medical man, who is at their service by night or day.

REMARKABLE RECOVERY FROM CHLOROFORM BY SUSPENSION AND INFLATION.

A VERY remarkable recovery from apparent death from chloroform is related by Dr. Prince in the *New York Medical Record* of Sept. 17th. Chloroform was administered to a gentleman who had a cardiac bruit for the purpose of opening an abscess of the mastoid cells. Just at the beginning of the operation it was found that both respiration and the action of the heart had ceased. The order of these events was not ascertained, but it was thought that the heart was the first to cease. "No time was lost in temporising," but resort was at once had to the inverted position, the patient being suspended by the flexed knees from the shoulders of Dr. Prince, who trotted round the operation-room with his burden so long as his strength lasted. He then stood still and the assistant practised the Silvester method, the body still inverted and suspended from Dr. Prince's shoulders. There was no response. The patient was again placed on the table, to all appearance dead. No time was lost, and the patient was now suspended from the assistant's shoulders and trotted round the room for about one minute. Then Dr. Prince remembered the account of the resuscitation of an infant by blowing directly into the mouth. He stopped, knelt down, put his mouth to the patient's, and drove air from his own lungs into those of the patient. "The chest expanded, the diaphragm, with the weight of the intestines, was raised," and Dr. Prince does not doubt that the flaccid heart was emptied of its blood. After auscultation, in which no sound was heard, artificial expansion of the lungs was resumed, expirations being effected by the elasticity of the chest. This was continued for about three minutes, when the persevering operators had the gratification of seeing the colour of the lips improve. Another interval for auscultation was allowed, but no sound of natural respiration or pulsation could be detected. Inflation was again resumed and continued for about two minutes, when the gratification was experienced of hearing the first natural effort at respiration. After a short time the operation was finished under ether. Dr. Prince adds: "This is the sixth case of suspended functions which did not respond to either the Marshall Hall or Silvester method, the first five of which recovered under suspension treatment. Without this all would have been lost. The foregoing is the only one that did not respond to the suspension method, and I am under unutterable obligation to Dr. Forest for paving the way to the direct inflation in the inverted position." Both gentlemen are to be congratulated on the result.

ERRORS OF DIAGNOSIS.

WE carefully abstained from accepting the accuracy of the Chairman of the Sanitary Committee of the Town Council of Leicester as to the "ignorance and intolerable carelessness" of notification work in Leicester, contenting ourselves with the remark that the charge was one for the medical men to note. We are glad to see that our remark has had the proper effect of stimulating at least one reply in the public papers where the charges appeared. We are alive to the difficulties of diagnosis, and persuaded that errors cannot always be avoided; but there is need for much consideration on the part of the sanitary authority before bringing wholesale charges of ignorance and intolerable carelessness. The following paragraph from a letter signed "Medicus" in the *Leicester Daily Post* suggests that the sanitary authority itself makes great mistakes, which should make it a little kinder in its estimate of human error: "With your permission, sir, and through your columns, I will ask the sanitary committee to answer the following questions:—(1) Whether an infant fifteen months old was sent into the Fever Hospital some three weeks ago—having been certified as suffering from scarlet fever—and was sent out in three days—back home—with an intimation that it was measles from which it was suffering? (2) Whether within fourteen days there was another case of scarlet fever in the same house from which this infant was sent? And (3) Whether, when the sanitary authority observed its error, both children were admitted—the infant readmitted, that is in a state of peeling, together with the other child to whom it had given the disease?"

THE QUEEN'S VISIT TO FLORENCE.

A FLORENTINE correspondent writes:—"'Queen's Weather' in the 'City of Flowers' is what the residents here are promising themselves from Her Majesty's projected visit to Florence—a visit now placed in the category of 'fixtures' by the presence of the Royal courier in the city, where that emissary has been in treaty with the proprietors of several patrician villas in the suburbs, on one or other of which Her Majesty's choice is expected to fall. Four, or more nearly five, years ago—in the March of 1888—the Queen spent some weeks in the Villa Palmieri, in order, it was said, to combine with her vernal *villeggiatura* a visit to the scenes hallowed byearly associations. Nothing could have been more gratifying, from every point of view, than Her Majesty's sojourn. The Tuscans, and indeed the Italian people generally, were most favourably impressed by the deep and intelligent interest taken in their past and present by the Queen-Empress, and Her Majesty in turn lost no opportunity of signifying, in the most gracious manner possible, her appreciation of all that Florence has to show of natural, artistic and historic attractiveness. Even the weather, which for eight weeks

before the Queen's visit had been broken and inclement, became suddenly so serene and steady as to invite the visits of other royal personages to the city—i.e., the Emperor of Brazil, and King and Queen of Wurtemberg, the Queen of Servia and (in the capacity of hosts) of the King and Queen of Italy—insomuch that a local bard commemorated the 'congestion of royalties' in a distich not yet forgotten by the people :—

'Non si fa passo la gente Florentina
Senza incontrar un Rè o una Regina.'

(We Florentines cannot venture abroad without encountering a King or Queen.) Another feature of Her Majesty's visit scarcely less gratifying to Florence was the increased attention to 'nettezza pubblica' (outward tidiness) on the part of the civic ædiles—a concession to the proprieties seldom vouchsafed to the Florentines or, indeed, to the citizens of any Italian town, but deemed *de rigueur* during the sojourn of a monarch whose subjects have always led the van in public cleanliness and sanitation. The initiative then taken has been more or less of a tradition ever since, and now, in the improved hygienic surveillance practised throughout Italy in terms of the recent 'Codice Sanitario,' above all in the increased attention paid to pure and abundant water-supply, Florence may pose as a 'winter city,' with a right to which she had too long neglected to entitle herself. The exact date of Her Majesty's visit has not yet been communicated to those in authority, but at whatever time it may take place I cannot be wrong in asserting that, of all similar august events, none could be more welcome to Florence or to Italy than the sojourn within the city and kingdom of a monarch so endeared to the Italian nation as the Queen-Empress Victoria."

THE LONDON WATER-SUPPLY.

FROM the tables contained in the report of Messrs. Crookes and Odling on the condition of the metropolitan water-supply during August it appears that the water continued to be of excellent quality, the proportions of organic matter present being, as now for some months past, extremely small. In periods of flood or after heavy rainfall these experts occasionally find in the course of their examination a sample which, when viewed in bulk, exhibits a distinct turbidity; and from some cause or other one such instance (a sample of water from the Southwark Company's mains) was met with among the 175 samples examined last month. Dr. Frankland, who examines the water on behalf of the Local Government Board, reports that the water taken chiefly from the Lea by the New River and East London companies was somewhat inferior to that sampled from the same source in July; but the water actually delivered by these companies possessed even a slightly higher degree of organic purity than the samples collected in July. The bacteriological examination of the waters as they left the filters of the various companies by Dr. Koch's process of gelatine plate culture gave the following results :—One cubic centimetre of each water collected on Aug. 25th, 26th and 27th developed the following numbers of colonies of microbes: Kent, 1; Chelsea, New River and East London, 4; Southwark—No. 1 well, 4, No. 3 well, 996; West Middlesex, 6; Grand Junction, 14; and Lambeth, 16. In reference to the high number found in No. 3 well of the Southwark company the engineer of the company wrote to Dr. Frankland as follows :—In consequence of the construction of the new filters at Hampton it has been necessary to employ a temporary engine and pumps to lift the water from No. 3 filter into the engine wells. In all the other cases, Dr. Frankland's report goes on, the high degree of bacteria purity is very satisfactory, and during the present crisis no effort should be spared to maintain this high standard. The condition of the water supplied by the Southwark company has been in question before, and only a few weeks ago we had occasion to comment upon the results of analysis laid before the Southwark Board of Works by their analyst. Water derived from rivers into which sewage is discharged cannot be expected to approach a high degree of organic purity, but at least we may demand that it should be thoroughly and efficiently filtered before delivery. If the filtering process is suspended even for a short time results of a most serious nature may follow. The Royal Commission on Water Supply resumed their sittings on Wednesday last, when evidence on the supply which might be expected from chalk districts was chiefly given.

THE HEALTH OF THE POPE.

AN Italian correspondent writes :—"Whatever rumour may say to the contrary (and more than one ill-omened *canard* is already on the wing), the health of Leo XIII. continues good. True, within the last few days he has had to modify his routine and, for the remainder of the year, will not resume the open-air life he led all the summer in the gardens of the Vatican, where he hardly allowed a day to pass without an excursion to the most charming spot of that charming demesne, the Villa of Pius IV., and wound up with a modest refection in the pavilion of the Torre. All he now allows himself in the matter of out-door exercise is a short turn, weather permitting, in that portion of the gardens in the immediate vicinity of the palace; while as to the giving of audiences, he vouchsafes these only to personages accredited on special business of Church or State. Even to morning mass in his private chapel the privileged outsider is very rarely admitted, and persons of distinction who are reluctant to leave Rome without seeing him can do so only 'sul passaggio'—that is, on his way back from one of the brief turns aforementioned in the gardens. In November next, if his health maintains its present satisfactory tenor, he will resume his ordinary Thursday receptions; meanwhile his daily life for the month of October has been, and is, exactly as I have described it. Since June last he has suspended audiences on anything like a numerous scale; but the time thus gained he devoted with all the greater energy to study and business—to the work, in short, which is at once his discipline and his delight. At present he is engaged in weaving the Encyclical which is to be published on the approaching celebration of his jubilee—an anniversary which is eagerly anticipated by the faithful in all parts of the world, if one may judge from the announcements already made of intended visits to Rome for the occasion."

A PLEA FOR THE SIX-YEAR-OLD MOLAR.

THE question whether it is justifiable as a conservative measure to remove teeth in cases where there is overcrowding, with its tendency to destructive caries, and if so, which teeth should be selected and at what age it is most advantageous to do so, was the subject of an interesting discussion at the Manchester meeting of the British Dental Association. The first point was tacitly accepted and the chief argument arose as to the relative advantage of removing the six-year-old molars or the bicuspids. Speaking of the intrinsic value of the molar Dr. Davenport of Paris, who opened the discussion, expressed views which are briefly as follow :—Lateral contact of the teeth is an essential factor of the normal arch, and good arches cannot be disturbed without injury. After extraction the roots of the remaining teeth move less than their crowns, and so the relations of the grinding surfaces are disturbed and much of the interlocking support of the masticatory surface is lost. When the six-year-old molars are lost a large amount of masticating surface is at once removed and a large space is left which requires much diminution in the size of the arch to obliterate. In proportion as the jaws are unsupported by the remaining teeth so do they approach each other ("shortening

of the bite" as it is commonly called), the lower incisors biting too deeply upon the upper incisors, perhaps flattening inward the lower or pushing out the upper incisors. The bicuspids are often not well articulated even when fully erupted, and the incisors offer no positive resistance to closure of the jaws, whence it follows that the principal force falls upon the molars. The great importance of the six-year-old molar from a masticatory point of view was acknowledged by all speakers at the meeting, but the question was whether it was in a saveable or an unsaveable condition. If these teeth were badly decayed their removal was indicated; if they were sound, the bicuspids should be sacrificed. Professor Stack is wont to compare the first molars to veterans and bicuspids to raw recruits. One member went so far as to say that to extract a sound first molar was almost a criminal offence. On the other hand, some members gave it as their experience that the extraction of the first molars gave much better results than was the case where the bicuspids had been removed. It was strongly urged by Mr. Rose that if the six-year-old molars were decayed at an early age they should be filled in view of a possible improvement in the general condition of the mouth, and that they should be retained at any rate until the second molar came into position. It was pointed out that the results of symmetrical extraction—that is, of all four teeth—gave much more satisfactory results than was the case if only one or two were so treated. "The best time for the extraction of the six-year-old molars," Mr. Quinby said in his summing up, "is immediately after the twelve-year molars are fully erupted, so as to be in complete occlusion; because this usually, though not always, occurs when the patient is about twelve years of age—that is, before the period of greatest danger to the teeth from decay. There are then plenty of masticators, so the loss of these will not be seriously felt. The articulating surfaces of the twelve-year molars, when they are in occlusion, give a natural support to these teeth, and assistance to prevent tipping and turning in their sockets; and what is of very considerable importance, the jaws have then gained all the growth they are likely to attain for two or three years at least, or until the wisdom teeth have become more developed." This discussion, which of course was simply intended to formulate some general rules, leaving each case to be judged on its own merits, will, it is to be hoped, do something to check the indiscriminate extraction of the six-year-old molar which was so prevalent but a few years ago, and is still too common a practice.

NEEDLES IN AN EPILEPTIC.

IN the newly issued volume of the Clinical Society's Transactions Dr. Charlton Bastian has recorded a case in which at various times no less than eighty-six needles were removed from different parts of the left side of the body of a female epileptic. The patient was under the care of Mr. James Merryweather, and from him and Dr. Oxley Wilson Dr. Bastian had received the particulars of the case. The patient was a spinster of fifty-five who had been subject to fits from an early age and had on two different occasions been an inmate of an asylum. She is now described as fairly intelligent, with occasional fits of bad temper but no morbid appetites, and her conduct in the workhouse of which she is an inmate is described as good on the whole. The fits are frequent, usually several in a day, but no automatism has ever been observed to follow them. She usually employed herself in sewing, darning or knitting, and before needles were found in her body she often had packets of assorted needles in her possession. The needles have appeared in almost every part of the left side of the body, more especially in the leg. One has been expelled from the mouth during a fit of coughing; so far as is known none have ever passed per rectum. As has been said, eighty-six in all have been found, and of these no less than thirty-four were removed during a period of two months. The patient does not seem to have been hemi-anæsthetic, and she complained of nothing except a little irritation when a needle was about to emerge. No abscess has even occurred, and no satisfactory explanation is forthcoming as to how the needles got there. As Dr. Bastian remarks, it is surprising that such a number of large needles could have been pushed in and should have made their way through different parts without injuring any vessels or nerves, or apparently causing much inconvenience. In a note appended to the communication reference is made to a case subsequently recorded by Dr. J. D. Craig of a woman, an inmate of an asylum, from whose body 286 needles were taken during life. Three were passed per rectum during sickness and eleven were taken from the tissues after death.

EPIDEMIC IN ITALIAN SWITZERLAND.

"RESIDENTS on the Swiss banks of the Lago Maggiore," writes a holiday contributor under date of the 15th inst., "have been much disquieted by the outbreak of an epidemic which, having appeared for the first time some weeks ago among the pupils of an infant school at Brissago, has lately spread to the families of the town and neighbourhood, and now includes the adults of the population. Its chief symptoms are violent emesis and intestinal dejections, accompanied by high fever, which is followed after some hours by remission and finally by complete defervescence. Hitherto no case has proved fatal, but the prostration ensuing on recovery is extreme, and time may yet develop sequelæ of a character more or less grave. At its first outbreak the water and food supplied to Brissago and its environs were suspected, and analysis of these by local experts was made with promptitude and care. The results, however, were in each case negative, and accordingly the sanitary authorities of the Canton Ticino lost no time in despatching commissioners to the seat of the outbreak, if only to minimise the alarm which had taken possession of the population. Their report will shortly be made *publici juris*, and will give the official account of the causation and course of the outbreak and contribute, I hope, to restore confidence to the inhabitants, resident or migratory, of this 'earthly Paradise.'"

"ASTASIA-ABASIA."

DR. PHILIP COOMBS KNAPP, of Boston, published a few months ago in the *Journal of Nervous and Mental Disease* a paper with the above heading, in which he gave an account of the various cases, forty-nine in all, which had been published under this name. The text of his paper was furnished by a case of his own, which he fully described as one of "paroxysmal trepidant abasia associated with paralysis agitans." The subject of this combination was an Irishman fifty-eight years of age, who had lived a sober and on the whole healthy life. His troubles began in 1889, when after a catarrh he began to have difficulty in walking and what he called "trembling" in the legs. He also had some pain in the shoulders, especially the left, and some cramps in the legs. His difficulty in walking occurred at the commencement of the act. Then, and when he attempted to turn, he was seized with spasm; his steps became short; there were rapid flexions and extensions of the legs on the thighs, and the thighs on the pelvis; he rose slightly on the toes, while the feet seemed to cling to the floor until the spasm became extreme and the feet appeared for a moment almost to cease to move. A tendency to fall forward was then evident, but he not unfrequently recovered himself and proceeded with a natural gait. His difficulty was increased under excitement, but he had no emotional disturbance. He was directed to practise the "balance step" of military drill with the idea apparently of distracting the attention, and this was

for a time successful in arresting the spasm. He relapsed, however, and when seen some months later the spasm was unchanged in character, but now distinct retropulsion was present and the case bore a very striking resemblance to one of paralysis agitans without shaking. Dr. Knapp evidently regards the case as one of abasia in paralysis agitans. We have frequently protested against the multiplication of names, which are perhaps to a certain extent descriptive, but which bring us no nearer to a true scientific classification. The cases which have been designated by the name "astasia abasia" are for all ordinary purposes cases of so-called functional paraplegia, and we have as yet failed to find any necessity for the introduction of a new name. The old one is perhaps vague and unsatisfactory, but the new one is no better and, we venture to think, unnecessary. As regards Dr. Knapp's case itself, the association of the symptom "abasia" with apparently paralysis agitans is interesting. So far as we can judge, it seems to be an intensification of the disturbance of locomotion which is present in that disease.

"A HOME FOR THE DYING."

WE have received from Dr. A. T. Schofield the copy of a circular letter with regard to the above Home. We refer to it the more willingly as we are convinced that there is a manifest need of an asylum which may be resorted to by those sufferers who have passed beyond the hope of effective hospital treatment. Briefly, the history of this movement appears to be as follows: Seven years ago a Scotch lady came to London with the need of this particular class so impressed upon her that she opened, and has maintained with the help of a few private friends, ten beds exclusively for dying people, whom she has tended until the end. So numerous and pressing, however, were the applications for admission to this private home that this lady and her friends felt that the time had come for the establishment of a more permanent refuge for cases of this kind. For this purpose steps have been taken to secure, as a "Home for the Dying," a capacious mansion, together with some two acres of ground, situated in the Upper Avenue-road, St. John's Wood. The institution, named "Friedenheim," will be opened on Nov. 7th next by the Duchess of Teck, accompanied by the Princess May. As we have said, there is much need of a home for cases which are for the most part ineligible for temporary hospital relief. The resources of our medical charities are even now strained to the uttermost, and any addition thereto in the shape of an adjuvant such as that above referred to cannot but be welcome to the benevolent public of London.

PRESENTATION TO DR. DICKSON.

THE *Civilian* of Oct. 1st contains the report of a very interesting event—the presentation of a service of plate to Dr. Walter Dickson, on his retirement from the position of medical inspector of the Customs establishment in the London district. The meeting was large, consisting of officers of the out-door department of the Customs. It was held at the Customs House, Thames-street, and presided over by Mr. C. H. Barton, Surveyor-General. The present consisted of a silver coffee pot, teapot, sugar basin and two goblets, which were enclosed in a substantial oak case. Some 540 officers of the out-door department subscribed. The testimony of all the speakers to Dr. Dickson's efficient and kindly service of thirty years and of the esteem in which he was held by the families of the men was very thorough and hearty. This is not the time—may that time be long deferred—to write a notice of Dr. Dickson's character and work, extending over fifty years. Roughly and shortly speaking, his active life divides itself into two main periods—twenty years in the Royal Navy, with manifold naval experiences in the Baltic, in the Indian mutiny, in China, and thirty years as a medical inspector of the Customs. He has been in many ways a chief promoter of naval medicine and hygiene. Those who know him best will best understand the honours and the regret which mark his retirement from the Customs' service, in which he is succeeded by his son, Dr. T. H. Dickson. Such events are among the pleasantest and the fittest which medical historians have to record. Dr. Dickson's retirement by seniority has been the subject of a very respectful intimation of regret from the Board of Customs through their secretary, Mr. R. J. Prowse.

THE PUBLIC HEALTH (LONDON) ACT.

WE gather from the accounts of proceedings under the Public Health (London) Act that sanitary authorities are being encouraged to enforce its provisions to a greater extent than those of the Acts which preceded it. Last week the owners of two houses in Hackney were proceeded against for neglect to carry out an order made by the magistrate, who had himself visited the premises. It is stated that he found them in very bad condition, rooms which were entirely underground were inhabited and used for sleeping purposes, and the waterclosets were faulty. Mr. Rose, before whom the case came on the second hearing, imposed in respect of one house a penalty of five shillings a day from Aug. 12th to Oct. 13th, and a like penalty in the case of the other house, from Sept. 8th to Oct. 6th, the penalties and costs amounting in all to £23 6*s*. The imposition of these fines will have a salutary influence upon others than the persons immediately concerned. If the owners of insanitary houses learn that neglect to comply with orders for their improvement will be followed by monetary loss which is not merely nominal, the work of sanitary authorities will become much easier, and there will be a general improvement in the condition of tenement property in London. The existence of a large staff of sanitary officials is rendered necessary by the neglect of such persons as the owner of the houses referred to, and this entails a considerable cost upon the ratepayers. The infliction of heavy penalties is the only method of saving the ratepayers expense.

PROSECUTION FOR EXPOSURE OF INFECTION.

A CONVICTION, including fine and costs amounting to £2 8*s*. 6*d*., was obtained in Worcester last week under Section 126 of the Public Health Act, 1875. The case was one in which a child in the desquamating stage of scarlet fever was allowed to run about in the bar of a public-house. Some conflict of evidence arose as to the precise injunctions of the medical attendant in so far as safety might be ensured by the use of oil for greasing the skin; but whatever the view held as to this, it was clear that no permission was even implied that should have admitted a desquamating child into a public bar. Dr. Mabyn Read gave evidence as to the notification of the disease and as to the child being allowed by its mother to expose itself while in an infectious state. There are few places where risk of infection is greater than in public-houses, and hence we trust the results of this prosecution will serve as a salutary lesson. But another point deserves notice. Hitherto it has been difficult to obtain convictions under the section in question, because the Act requires proof of "wilful" exposure. The Notification Act seems to have stepped in to supply much of the wanting link. Where an infectious disease is notified the parent can rarely plead ignorance as to its nature, and since notification of scarlet fever is almost always, as it was in this case, followed by a visit of the sanitary officials who leave printed advice as to the precautions which it is necessary to take in order to avoid the spread of infection it becomes practically impossible for parents, or other persons in charge, to plead that they

acted in ignorance of the results that might be brought about. Hence, probably, in this case the unsuccessful effort of the parent to shelter herself by the plea that she understood much more than seems to have been sanctioned by the practitioner who had been in attendance upon the child. In the future successful action under the section may largely depend upon the due following up of notification returns by the delivery of printed precautions at infected houses.

THE CAPE MEDICAL ACT.

THE dissatisfaction with several provisions of the Act, notably those affecting registered practitioners practising midwifery, has found further expression in a petition to the House of Assembly from about forty medical men practising in Cape Town and the neighbourhood. They find that the clauses in question tend to deter qualified persons from obstetric practice. No greater unkindness and injury can be done to lying-in women. They also complain of the clause preventing the sale of medicines by medical men unless they are also registered as chemists. Another great evil is the wholesale sale, without let or licence, of patent medicines, made up by irresponsible persons and sold indiscriminately to the public.

"PSYCHO-THERAPEUTICS."

WE published in THE LANCET of Aug. 20th, 1892, an article entitled "Psycho-Therapeutics: a Scientific Fragment, by Wm. Dale, M.D.Lond." It has been brought to our notice that a large nnmber of the quotations contained in the paper are the same as those given in the well-known work by Dr. Hack Tuke, entitled "The Influence of the Mind upon the Body." Seeing that Dr. Tuke's name did not once appear in the article, we have directed Dr. Dale's attention to these circumstances and he has forwarded us the following letter of explanation, which, in justice to Dr. Tuke, we reproduce.

Bishopsteignton, Oct. 8th, 1892.

DEAR SIRS,—It is six or seven years, as well as I can remember, since I gathered together the contents of the paper on Psycho-Therapeutics, and I have no record of the places and people from whom they came. Yet I remember we had Dr. Hack Tuke's work in the library of the hospital, where I was physician at the time, and that I made extracts from that work. The article Psycho-therapeutics, let me add, has no pretence to originality; but I sincerely regret that in it I was not able to give as quotations the matter that was not my own, on the ground I have already stated. I have never seen Dr. Tuke's book from that day to this. I hope this explanation will be satisfactory; at least, I have no other to give. I remain, dear Sirs, yours faithfully,

WM. DALE.

P.S.—I think you will see that under the circumstances I was not guilty of any intended plagiarism.

REMOVAL OF THE GASSERIAN GANGLION.

ON Saturday, the 15th inst., at King's College Hospital, Mr. Rose operated on a case of inveterate trigeminal tic in a woman aged fifty-six. Inasmuch as both the second and third divisions of the nerve were involved, it was decided after consultation with Dr. Ferrier to attack directly the Gasserian ganglion. This was accordingly done on the same lines as detailed in Mr. Rose's recently published work on the subject ("The Surgery of Trigeminal Neuralgia"). The base of the skull was trephined a little anterior and external to the foramen ovale, and the intervening bridge of bone removed. The dura mater was not damaged by the trephine in this case, but the operation was somewhat protracted on account of severe hæmorrhage from the internal maxillary vein. The third division was traced up into the ganglion and excised and the second division isolated and divided, the ophthalmic trunk being left intact. No attempt was made to remove the whole of the ganglion, but it was freely divided by the cutting hook as high as possible and broken up with a small curette. The patient has made satisfactory progress since the operation; she is perfectly free from pain and, as far as can be ascertained without disturbing the eye-pad, there is total anæsthesia of the right side of the face, nostril and tongue. The temperature has been practically normal, and the patient expresses herself as very comfortable. There has been a considerable discharge of cerebro-spinal fluid, probably from wound of the dural sheath surrounding the ganglion. This is the seventh patient on whom Mr. Rose has operated. The sixth case proved fatal from septic meningitis, possibly due to contamination through a damaged Eustachian tube. It occurred in a feeble old woman of sixty-eight, who had suffered intensely for many years. In the other five cases there has been no recurrence of the neuralgia, except in one neurotic individual, where the pain, however, has not been severe. The first operation was performed in April, 1890, so that this patient has had immunity from pain for two years and a half

SMALL-POX PREVALENCE.

SMALL-POX still prevails largely at Warrington, some thirty cases a week being notified. The disease smpulders in some of the badly protected Yorkshire towns, as Dewsbury and Halifax, and there has been a distinct appearance in Manchester. The metropolis does not appear to be suffering at all severely, only a few cases being reported per week. All these several facts are, however, not reassuring with regard to the prospects of a general epidemic extension of the disease at a later period. The type of the disease at Warrington appears to be severe and fatal. Already eleven deaths have occurred in the hospital, and hæmorrhagic cases are beginning to occur amongst the 112 who are now isolated there. Small-pox has also appeared in the village of Woodhouse, near Sheffield, and the cases have been sent to the Lodge Moor Hospital.

NERVE ENDINGS IN THE INTESTINE AND KIDNEY.

IN the *Bulletin of the Johns Hopkins Hospital*, No. 23, a paper is published by Mr. Henry J. Berkley a *résumé* of which appears in a recent number of the *Neurologisches Centralblatt*. His experiments were carried out on dogs and mice, and he found that in the outer layers of the muscularis mucosæ of the small intestine of the mouse a well-developed plexus of fine and coarse fibres exists which in general run parallel to the muscular fibres. Immediately under the muscle in the mucosa are more or less regular bundles of two or three fibres which are arranged around the bloodvessels. Some of these run to the free surface of the gut or of the villi. In the cortex of the kidney generally are numerous nerve fibres. The larger branches run between the tubules, the smaller anastomose in all directions with each other.

LIGATURE OF THE VERTEBRAL AND CAROTID ARTERIES IN EPILEPSY.

THE operation of ligaturing the two vertebra arteries, with an interval between the operations, for epilepsy not having given satisfactory results, and having been abandoned both by English and continental surgeons, Dr. Chalot of Toulouse has proposed, and indeed carried out in a few instances, some modifications. First of all he ligatured the vertebral arteries of the two sides at one operation, and subsequently he constricted the common carotid artery, so as to lessen its lumen by about one half, at the same time and with the same incision as he used for the vertebral artery. When this was done an interval of a week or a fortnight was allowed to elapse before the corresponding operation was performed on the other side.

He is not as yet able to speak positively as to the effect on the epilepsy, but there seem to be indications that some improvement has occurred.

THE NEW RAG ORDER.

ON account of an increase in the importation of Danish rags and of the continued prevalence of cholera in Northern and Central Europe, which might lead to the shipment of infected rags through Danish ports, the Local Government Board have drawn up another rag order in the usual terms applicable to the circumstances of the case. This takes effect on and after Oct. 26th, and applies to rags, bedding and clothing delivered from Denmark.

THE COST OF A SMALL-POX EPIDEMIC.

A CAPITAL object lesson has lately been presented to local authorities who are recalcitrant in carrying out the Acts which provide for the efficient protection by means of vaccination of the populations entrusted to their charge. It has been authoritatively stated that the cost of the recent small-pox epidemic at Brighouse, Rastrick and Clifton in Yorkshire amounted to between seven and eight thousand pounds; and a general district rate of 1s. 4d. in the pound has had to be levied to meet the largest item in this amount—viz., the charges of the hospital administration. Much, if not all, of this could have been avoided if vaccination of infants, followed by revaccination of adults, had been carried out as it should have been. Altogether, 231 cases of small-pox occurred in the district, costing the inhabitants on an average over £30 per case. This figure is in striking antithesis to the few shillings that it costs the ratepayers for public vaccination, both primary and secondary. Perhaps this financial aspect of the question will appeal to those whom a broader public-health standpoint would not affect.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Professor Hirschberg, the Ophthalmologist, being abroad, is not likely to resume his lectures this session.

Naples.—Dr. G. Melle has been recognised as *Privat-docent* in Dermatoloy and Syphilis.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Antonio Garcia Cabrera, Professor of Anatomy in the University of Granada.—Dr. Isidore Henriette, Professor of the Diseases of Children in the University of Brussels.

THE Società Italiana di Laringologia, Otologia e Rinologia will hold its annual meeting in the Aula Magna of the Roman University on Wednesday, Oct. 26th, at 10 A.M. After the opening address of Professor Vittorio Grazzi, the President, a paper will be read by Dr. Alessandro Trifiletti on "The Importance of Laryngology, Rhinology and Otology to the General Practitioner." After business preliminaries, including the constitution of the Sections, the agenda will be proceeded with, and a number of "Relazioni" (reports) assigned at last year's meeting to various experts for the investigation and discussion of debatable or obscure points in laryngology, rhinology and otology will be read and considered.

"PHTHISIS in relation to Life Assurance" will form the basis of a special discussion at the Hunterian Society on the 26th inst., at 8.30 P.M. The subject will be introduced by a paper by Dr. Glover Lyon, and Drs. Pye-Smith, J. E. Pollock, E. Symes Thompson, Sedgwick Saunders and others will take part in the debate.

WE understand that a few appointments to the Indian Nursing Service will very shortly be made by the Secretary of State for India. This service, which was founded on a small scale in 1888, mainly on the lines of the Army Nursing Service, has since been gradually extended to nearly all the larger military stations in India, where it ministers to the needs of the sick British soldier. Candidates must have at least three years' previous training in a general hospital, preference being given to those trained at the larger metropolitan and provincial hospitals, where naturally the widest experience is gained in medical and surgical cases.

THE Royal Commission appointed to inquire into the granting of a Charter for the formation of a Teaching University in London and to modify in any way the Gresham Charter so that it may be best adapted thereto has resumed its sittings. Witnesses on behalf of the Working Men's College, the Birkbeck Institution and the London Society for the Extension of University Teaching have been heard. It would appear that the Commission has completed, at any rate for the present, the examination of the medical witnesses.

THE autumnal general meeting of the Irish Medical Schools' and Graduates' Association will be held at 11, Chandos-street, Cavendish-square, London, W., on Wednesday, Nov. 2nd, 1892, at 6 P.M. On the same evening the Association will dine at the Holborn Restaurant at 7 P.M., Mr. James N. Dick, C.B. (Director-General Medical Department, R.N.), President, will be in the chair.

AT the meeting of the General Council of the Royal British Nurses' Association, to be held at 20, Hanover-square to-day (Friday), at 5 P.M., H.R.H. Princess Christian will preside.

A NEW Italian medical fortnightly has just appeared under the title of *Gazzetta Medica di Pavia*. It is brought out under the auspices of the Pavia Medical Society.

THE death is announced of Dr. Conway Evans, medical officer of health for the Strand district.

CHOLERA.

CURRENT NOTES, COMMENTS AND CRITICISM.

THE report for the week as to the progress of cholera is, on the whole, satisfactory. The statistics for the eighth week of the epidemic at Hamburg, which ended on the 15th inst., were 82 attacked, with 24 deaths, against 173 and 46 respectively during the preceding week, bringing up the total registrations to 17,962 cases, of which 7593 ended fatally. The new cases for the 18th inst. were 11 and 1 death. The patients in hospital had declined to 575. The rapid spread of the disease at Hamburg, once it had really obtained a foothold there, is a noteworthy feature. Up to Aug. 20th the cases seem to have been comparatively few, but by Aug. 27th the attacks had risen to 1000 a day. All the arrangements were dislocated for the moment, and it was only after a period of perplexity and confusion and by strenuous efforts that the local authorities were able to cope with the evil in the way they did.

As regards Holland we learn that there have been 35 fresh cases in the whole country during the past seven days, 9 of which occurred at Utrecht. One case of Asiatic cholera and 1 death from cholera nostras occurred on the 18th at Rotterdam, and 1 fresh case and 2 deaths from Asiatic cholera at Utrecht, while 6 additional cases are reported from various other towns. At Budapest there were 17 cases and 11 deaths recorded on the 18th; at Cracow a few cases;

at Antwerp the authorities have decided to discontinue the daily issue of bulletins, as cholera had disappeared from that city; at Berlin the hospital in Moabit at present contains no case of Asiatic cholera, and as none have appeared for some time past it is intended that the hospital shall shortly revert to its original character as a general infirmary; at St. Petersburg fresh cases continue to appear, notwithstanding the marked decline which has taken place; and as regards Paris and its suburbs, there are some deaths reported from cholera and but few fresh cases. The epidemic at Marseilles, which was of a limited character, appears to be subsiding. There are still numerous cases at Marseilles spread over various parts of the town. This outbreak was attributable, according to Dr. Brouardel, to the contamination of water with sewage. *The Times* correspondent at Brussels informs us that the director of the sanitary service has laid a report before the Superior Council of Health, from which we glean the following information. Between July 21st and October 1st 1135 cases have been reported to the authorities, of which 564 proved fatal. In the port of Antwerp there were 244 cases and 89 deaths. With the exception of Antwerp the places where the visitation has been most marked are those which communicate with the metropolis by water. The provinces of Liège, Limbourg, Luxembourg, and Namur, possessing the purest drinking water, have been very slightly attacked. In view of the slight gravity of the cholera outbreak in Belgium the Government suspended on the 1st inst. the medical control established on the frontiers. The report of the director of the sanitary service shows the futility of these restrictive measures, which are more vexatious than effective. A sounder legislation and the diffusion of a better understanding of the simpler rules of hygiene are, it is stated, surer safeguards against the evil.

We wish, as we have said already, that we were in a position to assure our readers that this decrease and apparently gradual cessation of the epidemic at the present time was a guarantee of immunity in the future; but of that we cannot be at all sure, if we are to follow the lesson taught us by epidemics of cholera in the past. From the accounts that are coming in we are beginning to realise the nature and extent of the scourge which the present epidemic has proved. In Teheran, where the disease began on Aug 4th with a mortality of 14, it rapidly increased, and according to the latest accounts had only recently disappeared. The total mortality amongst the natives is estimated at over 20,000, and out of a very small European colony 21 died. At the outbreak of the malady about 30,000 people fled from the city, but a considerable number died of the disease, which they had already contracted at Teheran. There was, speaking generally, an absence of doctors, nurses, hospitals and all sanitary supervision. At the meeting of the Hygiene Council on the 17th inst. M. Monod submitted statistics showing that the cholera victims in France from April 14th to Oct. 15th numbered 3184. These deaths took place in 212 parishes. In April there were 65, in May 28, in June 107, in July 466, in August 841, in September 1411, and in October 266. In 1884–85 there were 11,685 deaths in 639 parishes. Havre now shows a clean bill of health. It would be very interesting to ascertain the exact results of the bacteriological observations of the cholera that has prevailed so long in and about Paris, more especially of those made during the earlier period of its prevalence. We do not at all desire to decry the systems adopted by other nations and extol our own methods, but we imagine that as far as New York is concerned the unnecessary hardship and evils attending their late wretched experience at that port have been fully recognised and are not likely to be repeated by such an intelligent, clear-headed and practical people as the Americans. We cannot be surprised at the appeals, expostulations and representations that came from the unfortunate passengers arriving by various steamships at New York. It surely cannot be justifiable to adopt a method of detention of ships which compels the healthy to remain in contact with the sick. Apart altogether from all questions of infection, it is obviously cruel to subject innocent and healthy people to the fear of it and under circumstances such as so frequently obtain on shipboard—viz., overcrowding, discomfort of all kinds and probably insufficient or improper food. That strikes us as the best conceivable way of increasing and developing the spread of the disease; whereas a strictly sanitary detention of a ship, the separation and segregation of the sick in hospitals on shore and the dispersion of the remainder, due and proper precautions being of course taken in regard to them, seems to be the only really practicable course that can be adopted. It is the best and most merciful procedure as regards the sick themselves; it is the only workable one as regards the healthy, and it affords a safeguard as to the future in that it enables the authorities to warn those directly concerned at the localities whither they are going. It has so far worked admirably on the present occasion. Until we have arrived at the end of this epidemic and are looking back at it as a thing of the past it is not becoming to boast, but it may be truthfully said that the arrangements in this country have proved sufficient for the purpose. And, after all, where is there any country that has such direct and constant communication with other countries and with India, the alleged home of cholera, as England? The Red Sea route to India was opened in 1842 and the Suez Canal completed in 1869. Eighty per cent. of the shipping that comes through the Suez Canal is British. Our intercourse with the East is constant, and our commerce extends to every country in the world, and we should consequently be more exposed to the introduction of the disease than any other country. But Great Britain has indisputably not suffered more than her neighbours from epidemic cholera. She has, on the contrary, for very many years past had an almost complete immunity from it. There have been between twenty and thirty instances in which cholera has been introduced into this country, and at the moment of writing it is reported that the medical officer of the port of London, Dr. Collingridge, had removed a case of cholera from the steamship *Biafra* to hospital and detained another steamer, the *Ruby*, which had landed a case at Cuxhaven, for fumigation. A vessel had arrived at Belfast Lough from Ibrail, on which a death, believed to have been from cholera, had taken place. It is but right to recognise our indebtedness to the health department for its foresight and administrative capacity and to the port sanitary officers for the vigilant supervision they have exercised and the prompt action they have taken.

By way of conclusion we desire to call attention to the graphic chart prepared for the use of the French Government, representing the daily cholera mortality per million at Paris, Rouen, Havre and Hamburg respectively during the months of August and September and for a portion of the present month. The chart graphically indicates the way in which the disease comported itself and the relation between its rise and fall at these different places. The continuous low-level rate of prevalence of cholera at Paris and its suburbs is in striking contrast to the rapid, almost vertical, rise of the Hamburg outbreak, with its irregular and oblique line indicating its fall. It is also a noteworthy feature in the chart that it shows similar fluctuations of prevalence of the disease at places widely apart, as if in obedience to some common influence.

THE CHOLERA IN FRANCE.

(FROM OUR SPECIAL CORRESPONDENT.)

VISIT TO HAVRE.

CHOLERA DIAGRAMS.—THE EARLIEST CASES AT HAVRE.—LATE YET EFFICACIOUS MEASURES.

THOUGH England has so far escaped from the cholera epidemic which prevails extensively in Asia and in Europe, this immunity should not make us unmindful of the very great dangers with which we are still beset. Perhaps it is not fully realised that all the nearest ports, and the ports with which we are in almost daily communication, are, without exception, more or less contaminated with cholera. From Hamburg, on the North Sea, through the Straits of Dover, all down the Channel to Cherbourg there has been cholera in and about every harbour. In some ports the epidemic was severe, in others there were but a few cases; but whether slight or severe, cholera has travelled along the whole coast line. There has been cholera at Rotterdam. I have described the cholera at Antwerp. The epidemic still continues there, and many other small towns in the neighbourhood are infected. Here at Havre I find that ships from Dunkirk are put in quarantine. Near Boulogne, at Portel, 31 deaths from cholera occurred in a few days out of a population of 5327 inhabitants. Some 400 inhabitants of Portel go to Boulogne every day. At Tréport in two or three days 12 persons died from cholera out of a population of 4569, and at Dieppe up to Oct. 4th 40

persons had died from cholera out of a population of 22,700. At Honfleur, whence so much poultry and dairy produce generally is exported to England, there have been cases of cholera, and at Cherbourg cholera so far prevails that the ships arriving here from that port are not allowed free access. Havre, like Antwerp, though itself infected with cholera, imposes quarantine and restrictive measures on ships arriving from other ports where there have been a few cases of cholera. The fact that in some of the ports mentioned there have been barely half a dozen cases does not suffice to remove all anxiety. If the sanitary condition of these ports were thoroughly satisfactory, there would be little cause for alarm. Unfortunately this is not the case; and when once the germs of cholera have been introduced in an insanitary locality it is impossible to say when and with what intensity the epidemic may revive.

At the Ministry of the Interior at Paris I had an opportunity of seeing a map of France. Pins pierced every town and village where cases of cholera had occurred. The result was a perfect forest of pins, stretching from Paris in a north-westerly direction towards the sea and forming thick clusters on both banks of the Seine. It was not till I had examined this map that I realised the widespread nature of the epidemic. It was gratifying to see by the side of this map of France a map of England and Scotland. Twenty-five pins, indicating twenty-five imported cases of cholera, were affixed in thirteen different places. There were six pins in London and the port of London, five at Grimsby, one at Middlesbrough, one at North Shields, one at Tynemouth, one at Blyth, three at Falmouth, four at Liverpool, one at Grangemouth and three at Glasgow. M. Henri Monod, Director of the Poor Relief and Public Hygiene Department at the Ministry of the Interior, explained to me that he had this map prepared to show the members of the French Government and the Consultative Committee of Hygiene for France how England had succeeded in preventing the spread of imported cholera, and to impress on all concerned the necessity of reporting the first cases, for if this were done promptly the danger could at once be stamped out. M. Monod, in his official report to the French Government, speaking of this cholera map of England, says: "Thus in England and Scotland 25 cases of cholera arrived in various ports; 9 patients died, 16 recovered, and not a single inhabitant was contaminated. It is difficult to attribute this result to the climate of England, for in 1832 and 1849, and on several other occasions, the cholera had many victims. We must render all honour to the progress accomplished in public hygiene, and it is certainly not at this moment that England will regret the expense incurred to accomplish sanitary reforms, and to organise in so powerful a manner her sanitary services."

Gratifying as this language must be to all who in England have at heart the cause of sanitary reform it must not blind us to the dangers we still incur. The germs of cholera are scattered along the whole coast line facing England and trading with England, and though great sanitary works have been accomplished in England there still remain dark spots where the cholera could spread as readily as on the Continent.

M. Monod further showed me a very interesting chart, which gives the actual daily number of deaths from cholera occurring in Paris, Rouen, Havre and Hamburg. The lines crossing the chart, which is reproduced on the opposite page, give the absolute number of deaths for each day. The figures to the left show for each day the proportion of deaths per million of the population. Thus we are able to see, simultaneously and at a glance, not only the fluctuations of the four epidemics, but the mathematic demonstration of their proportionate intensity. The difficulty in preparing this chart has been to include the city of Paris, for there the number of deaths, in proportion to the population, is very small. For this purpose it has been necessary to make the proportion per million of the population. I was allowed to have a copy made of this interesting chart, which was courteously placed at the disposal of the Editors of THE LANCET by the Director of the Sanitary Administration of France, M. Henri Monod.

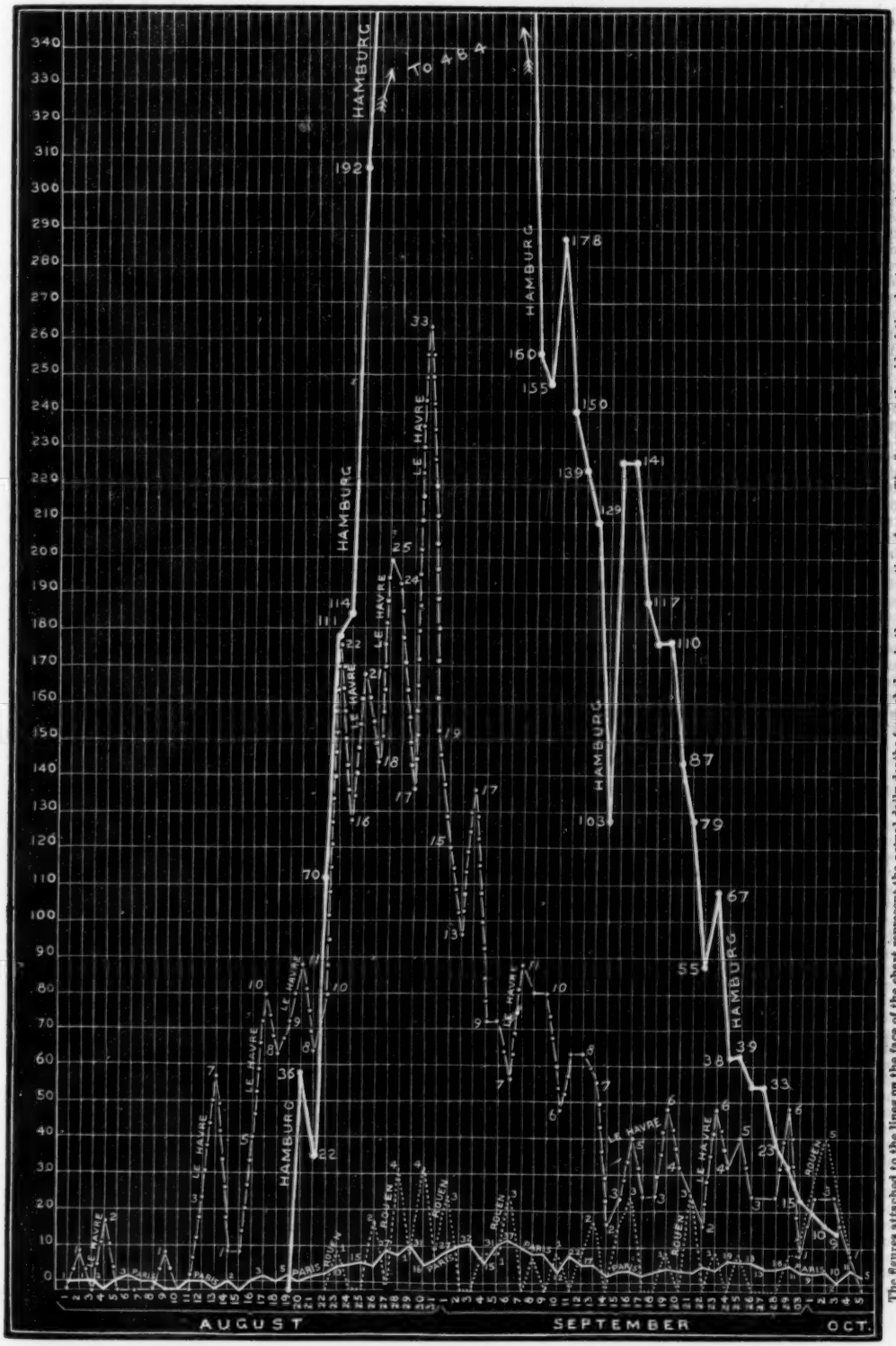
Seeing how high is the proportion of deaths at Havre it seemed most necessary to study on the spot the probable causes of so unfortunate a state. But here as elsewhere there are two causes—the actual cause and the predisposing cause. It seems now clearly established that the infection came by land from Paris and reached Havre before Rouen was attacked. The fatal tendency to deny the existence of cholera is the cause of its epidemic prevalence at Havre.

The first case—not the first death—occurred on July 5th. Dr. Courbet was called to attend a woman sixty-five years old, who lived at the extreme east of the town near the Barrière d'Or. This person had been staying at Courbevoie, and had left because there were several cases of cholera in the immediate neighbourhood. Shortly after her return to Havre from Paris, and after having suffered from slight diarrhœa for a few days, she commenced to vomit and felt very feeble. Dr. Courbet found her very anxious, with drawn features, the nose pinched, the extremities cold and the voice much enfeebled. Under treatment the patient soon recovered, but remained very feeble for a considerable time. The house was clean and no other case occurred on the premises. On July 13th another and more marked case was seen in the Cours de la République, a broad thoroughfare also to the east but somewhat nearer to the centre of the town. Again, the patient was an elderly woman aged sixty. There was no premonitory diarrhœa. Dr. Courbet, who also attended this patient, states that "in the night violent diarrhœa suddenly set in; incessant vomiting, choleraic dejections, terrible cramps, broken voice, anuria, cold extremities, blue colouring of the nails, thready and rapid pulse." The reaction was satisfactorily brought about, but the convalescence was long and painful. There is no reason to believe that this person had travelled. On the next day (July 14th) a workman was taken ill in the Rue du Château-Graville. The symptoms were complete, but he also recovered. It was on July 15th that the first death was recorded, the victim being a sailor who lived in the Rue des Drapiers. This street is situated behind the Grand Quai in a part of the old town which became one of the principal centres of the epidemic. The sailor had been two months at Havre, so he cannot be supposed to have contracted the disease abroad. He died after a few hours' illness, and Dr. Lebreton, who attended him, did not hesitate to consider this as a true case of cholera. The woman with whom this man lodged also died from cholera, but somewhat later. The next death did not take place till July 28th; the case occurred in the Rue Viviers. The third death was that of a rag sorter, and happened on Aug. 3rd. The deaths now became more frequent, yet no official notice was taken of the epidemic. It is important to note the early date of the first cases and the first deaths, then that these cases were scattered in different parts of the town, and there seemed in the earlier stages to be no focus of disease. The first case mentioned was at the extreme east of Havre, at the Port d'Or. Early in the epidemic three cases and one death occurred in the Rue Frère Constant, at the extreme west of the town. Then there were cases in the centre—in fact, all over Havre; but, on the other hand, when once the epidemic was developed cases occurred in well-defined clusters, proving most conclusively that particular parts of the town were especially susceptible. The reason of such susceptibility I will subsequently attempt to explain.

There are no medical officers of health in France, but there are doctors for epidemics—*médecins des épidémies*—who, on receiving instructions from the Government, have to report and advise upon epidemics. No salary is attached to this post, but travelling expenses may be claimed, as also some compensation for loss of time. The doctor has, however, himself to estimate the value of his time and send in an account, which must be examined and approved by the Prefect of the Police, with the result that an undignified wrangle sometimes occurs between the doctor and the prefect as to the various items. Under such circumstances it is not surprising if some doctors prefer doing the work gratuitously, and it is still less surprising if the work is at times neglected or accomplished in a very hasty and unsatisfactory manner. There is one *médecin des épidémies* for every arrondissement. The department of the Seine Inférieure is subdivided into six arrondissements, and the arrondissement of Havre comprises twelve cantons, involving a distance from one canton to the others of twenty miles and more.

On July 5th, when the first suspicious case was noted, the *médecin des épidémies* should have been informed of it then and there. At Havre the result would have been most beneficial, for this town has the good fortune of possessing as its "doctor for epidemics" one of the most eminent and best known sanitary reformers of France, Dr. Gibert. For twenty years Dr. Gibert has insisted on the insanitary condition of the town, and it is due to his energetic and eloquent pleading that Havre was the first town in France to institute a Bureau d'Hygiène. It will scarcely be credited that more than a month elapsed before Dr. Gibert was informed that there was cholera at Havre. On Aug. 10th he heard from some of his colleagues

CHART REPRESENTING THE PROGRESS AND PROPORTIONATE INTENSITY OF CHOLERA AT PARIS, ROUEN, HAVRE AND HAMBURG DURING THE MONTHS OF AUGUST AND SEPTEMBER AND FOR A PORTION OF OCTOBER. (*Vide* p. 956.)



The figures attached to the lines on the face of the chart represent the actual daily deaths from cholera in the respective places. The figures at the side of the chart represent the death rate per 1,000,000 of the population in these towns.

what had happened, and at once hastened to the hospital to ascertain what was the true nature of the malady. Convinced by thus seeing the patients of the gravity of the situation, he hastened to send an energetic communication to the Minister of the Interior. It will be remembered that it was on Aug. 14th that the *St. Paul* left Havre with a clean bill of health and brought cholera to the port of Antwerp. The first cases of cholera, it seems now clearly established, occurred at Havre before any cases of cholera were noted either at St. Petersburg or Hamburg. There is also good reason to believe that the cholera was brought from Paris to Havre towards the end of June and the beginning of July. As at that time in Paris every effort was made to deny and to disguise the true nature of the epidemic it is not surprising that it spread broadcast, infecting numerous towns and villages not merely in France, but across the frontier, in Belgium. In spite of these facts and these dates some attempts have been made to infer that the cholera was imported from Hamburg to Havre. Certainly the *Rugia* from Hamburg brought some cases of cholera to Havre, but this ship only arrived on August 23, and, as Dr. Gibert remarked in his paper read before the Academy of Medicine, there had been at that date already seventy-one deaths from cholera at Havre. The proportion of deaths was also such as to denote that the epidemic was of the most virulent character. To those who spoke of choleriform diarrhœa and home cholera, and used other attenuated terms, Dr. Gibert opposed the appalling fact that out of the first fifty cases removed to the hospitals no less than 48 had died. To those who argued that it was not real cholera because the disease did not spread rapidly—and this was a very general argument, especially in Paris—the reply could be given that at the Western Hospital of Havre twelve internal cases had followed upon the reception of cholera patients. Though this showed that the disease could spread a proof was soon forthcoming that with good sanitation the disease did not spread. Orders were given that no more cholera patients were to be received at the Western Hospital; henceforth they were all taken to the Eastern Hospital, which is built on the Tollet system, and consists of isolated pavilions in the shape of the gothic arch, devoid of angles, well ventilated, and surrounded on all sides with light and air. Not a single internal case has occurred in the Tollet hospital, though more than a thousand cases of cholera have been treated there. On the other hand, at the Western Hospital, which is a block building several storeys high, there were but fifty-seven cholera patients and yet this sufficed to produce twelve cases of cholera contracted within the walls of the hospital.

In the town, as in the hospitals, good sanitation has held the epidemic in check. Acquainted with the existence of the epidemic on Aug. 10th only, it was on Aug. 16th that, as "doctor for epidemics," Dr. Gibert was able to propose a plan of defence to M. Louis Brindeau, Mayor of Havre, and M. Lardin de Musset, sub-prefect. This plan was approved. On Aug. 18th the medical practitioners of Havre were gathered together at the Town Hall, the method of procedure explained; and twenty-four doctors then and there placed themselves at the service of the administration, and on Aug. 19th the new system was inaugurated; but what precious time had been lost since July 5th! Dr. Gibert estimates that the methods of disinfection and isolation were not satisfactorily applied before Aug. 26th. On the following day seventy-two cases of cholera were notified. This was the maximum for any one day. On the 30th there were sixty cases notified and thirty-three deaths. This seems to have been the maximum number of deaths recorded in one day. By that time the rigorous measures adopted began to take effect; five days later, Sept. 4th, there were twenty-seven cases, and not half that number of deaths. After Sept. 10th the deaths were below ten per day. During the first eleven days of October there have been only twenty-seven deaths from cholera. But, unfortunately, there are still occasional, though comparatively rare, cases of cholera. The means taken seem to have successfully prevented the disease spreading, but they were taken too late to completely stamp out the epidemic.

M. Louis Brindeau, the Mayor of Havre, whose great energy, courage and activity very materially helped to save the town from worse disasters, carefully explained to me the system adopted. Six police stations were converted into sanitary centres. For day duty eight doctors were attached to these stations; two to the two stations situated in the most popular quarters. It was the duty of these doctors to call at least once in every three hours, and to proceed immediately to any case signalled in the district. The doctor was accompanied in his visits by a sergeant of police, and on the doctor declaring that the person visited was suffering from cholera the sergeant of police at once telegraphed or telephoned for the ambulance and the disinfecting staff. The presence of the police officer was also very useful and resulted very generally in consent being given for the patient to be removed to the hospital, though the law does not arm the authorities with the power of compulsory removal to the hospital. For this work the doctors were paid 3 fr. a visit, and as the epidemic subsided and there were no visits to be made, the mere fact of calling at the police station will be credited to them as a visit. On the other hand, it was laid down that, however numerous the patients, no doctor was to charge more than 40 fr. for one day's work. At night all the services were centralised at the Town Hall or Hôtel de Ville. Here two doctors had to sleep and two carriages were kept in readiness all night. At present, as cases of cholera are of but rare occurrence, there is but one doctor on night duty. These doctors are allowed 10 fr. per night and 8 fr. for each patient seen—on condition, however, that the total sum does not exceed 50 fr. for any one night. Every case seen by these doctors was entered in a register and communicated to the mayor and the Bureau d'Hygiène. As a result every case was reported, notification to the nearest police-station being obligatory on all practitioners, and was at once seen, and removal to the hospital and disinfection of the premises followed with equal promptitude. Arrangements were made that all chemists should supply whatever medicaments were required free of charge to patients, the cost being refunded by the municipality. At one time twenty men and four brigadiers of police were employed day and night disinfecting premises. There are three portable stoves and two larger fixed stoves at the hospitals. Four of these stoves disinfected by steam under pressure, the fifth by heat and steam, which, however, is not under pressure. The disinfection is divided into two distinct operations. The first is the removal of all linen, bedding &c. to the disinfecting stove, excepting such objects as can be burnt then and there. After that the walls, furniture &c. are sprayed over with a solution of sublimate. The second operation is carried out by the architect of the town, who has fifteen men under his orders for this purpose, and consists in the main of scraping the walls, whitewashing them, scrubbing them &c. When once these various operations were strictly applied, the epidemic began to subside. This hard experience has taught, however, many lessons, and throws considerable light on the causes favouring the development of the disease, but I must reserve this phase of the subject for another occasion.

THE HYDERABAD CHLOROFORM COMMISSION.

WE have received from Hyderabad the following letter which Dr. Wood has addressed to Major Percy Gough, Secretary, Hyderabad, Deccan:—

1925, Chestnut-street, Philadelphia, Aug. 30th, 1892.

DEAR SIR,—I write to acknowledge the receipt of the two volumes of the report of the Hyderabad Commission, and to state that we will present them to the Library of the College of Physicians of Philadelphia, which is the largest medical library in the United States except that belonging to the Government at Washington. Will you please express to his Highness the Nizam the great gratification it has given me that while the Government in England, moved by the clamours of misguided fanatics, has been suppressing scientific researches, in India a ruler should appear who is so wise and so munificent as to do this great thing which His Highness has done for science?

With profound respect, I remain,
Your obedient servant,
(Signed) H. C. WOOD.

[TRUE COPY.]

Ed. Lawrie, Surg.-Lieut.-Col., Hyderabad, Sept. 20th, 1892.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 14th inst. the degree of Bachelor of Medicine was conferred on Mr. John Cropper, Trinity.

THE ENTRIES FOR THE SESSION 1892-93.

THE entries at the Medical Schools for the ensuing session, so far at least as the metropolitan schools are concerned, are now nearly complete, and by the courtesy of the Deans of the various institutions we have been enabled to tabulate the figures in a manner which will prove useful in many ways. Returns have not been received from either the Scotch or Irish Schools of Medicine, as work there has been resumed only during this present week. Notwithstanding the fact that the General Medical Council now requires medical students to attend for five years instead of four, the entries at five of the Medical Schools are much larger this year than they were last year. The total number of entries at all the Medical Schools show an increase as compared with last year.

—	Analysis of new entries.					Total number of students at present on the roll.				
	General students.	Special students.	Dental students.	Preliminary scientific students.	Totals.	First year.	Second year.	Third year.	Fourth year.	Totals.
St. Bartholomew's Hospital	112	23	—	17	150[1]	150	110	95	115	470
King's College Hospital..	28	57[2]	—	10	95	†	†	†	†	256
St. Mary's Hospital	61	36	1	7	105	1 5	113	53	141	412
University College Hospital	51	36	5	63	155	†	†	†	†	†
The Middlesex Hospital	35	43	11	3	92	49	71	58	75	253
Westminster Hospital	12	4	0	3	19	12	17	17	42	88
Guy's Hospital	106	36	26	23	191	132	124	101	175	532
St. Thomas's Hospital	71	17	—	8	96	†	†	†	†	†
Charing Cross Hospital..	40	17	25	3	85	76	73	33	79	261
The London Hospital	50	65	1	5	121	50	36	54	142	282
Mason's College	32	42	4	14	91	†	†	†	†	230[3]
Yorkshire College..	32	9	—	27	68	†	†	†	†	†
Bristol Medical School	28	—	2	—	30	†	†	†	†	†
Owens College	60	36	5	55	156	†	†	†	†	†

[1] Exclusive of those Preliminary Scientific Students who have also entered for the Curriculum or for Special Courses.
[2] Including Bacteriology. [3] Entry not complete
NOTE.—The Scotch enrolment goes on for nearly a month, yet the statistics cannot be obtained. † Information not supplied.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6153 births and 3382 deaths were registered during the week ending Oct. 15th. The annual rate of mortality in these towns, which had been 16·6 and 17·8 per 1000 in the preceding two weeks, declined again last week to 17·3. In London the rate was 17·1 per 1000, while it averaged 17·5 in the thirty-two provincial towns. The lowest rates in these towns were 8·4 in Croydon, 12·0 in Derby, 13·0 in Bolton, and 13·4 in Cardiff; the highest rates were 20·2 in Liverpool, 20·9 in Blackburn, 23·3 in Salford, and 30·6 in Preston. The 3382 deaths included 389 which were referred to the principal zymotic diseases, against numbers declining from 989 to 505 in the preceding six weeks; of these, 123 resulted from diarrhœa, 77 from measles, 59 from diphtheria, 53 from scarlet fever, 39 from "fever" (principally enteric), 34 from whooping-cough, and 4 from small-pox. No fatal case of any of these diseases occurred last week in Derby; in the other towns they caused the lowest death-rates in Plymouth, Wolverhampton, and Halifax; and the highest rates in Manchester, West Ham, Oldham, Salford, and Preston. The greatest mortality from measles occurred in West Ham, Brighton, Bradford, Huddersfield, Oldham, and Salford; from scarlet fever in West Ham; from whooping-cough in Nottingham, Birkenhead, and Preston; from "fever" in Sunderland; and from diarrhœa in Leeds, Manchester, Gateshead, and Preston. The 59 deaths from diphtheria included 46 in London, 2 in West Ham, and 2 in Manchester. One death from small-pox was registered in Liverpool, one in Manchester, one in Oldham, and one in Leeds, but not one in London or in any other of the thirty-three large towns; four cases of this disease were under treatment in the Metropolitan Asylum Hospitals and 7 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 3796, against numbers increasing from 3052 to 3628 on the preceding eight Saturdays; 503 new cases were admitted during the week, against 369 and 412 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 114 to 184 in the preceding six weeks, further rose to 241 last week, but were 32 below the average. The causes of 70, or 2·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Leicester, Bradford, Leeds, Sunderland, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Liverpool, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 17·1 and 18·5 per 1000 in the preceding two weeks, declined again to 18·0 during the week ending Oct. 15th, but exceeded by 0·7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·6 in Leith and 13·4 in Dundee to 20·6 in Perth and 21·5 in Greenock. The 500 deaths in these towns included 33 which were referred to measles, 16 to scarlet fever, 13 to diarrhœa, 8 to whooping-cough, 3 to "fever," 2 to diphtheria, and not one to small-pox. In all, 75 deaths resulted from these principal zymotic diseases, against 84 and 78 in the preceding two weeks. These 75 deaths were equal to an annual rate of 2·7 per 1000, which was 0·7 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased from 12 to 22 in the preceding three weeks, further rose to 33 last week, of which 17 occurred in Edinburgh, 8 in Glasgow, and 4 in Leith. The deaths referred to scarlet fever, which had been 17 and 16 in the previous two weeks, were again 16 last week, and included 11 in Glasgow and 2 in Edinburgh. The 13 fatal cases of diarrhœa showed a further marked decline from recent weekly numbers, and included 8 in Glasgow. The 8 deaths from whooping-cough corresponded with the number in the preceding week, and included 6 in Glasgow. The fatal cases

of diphtheria, which had been 10 and 6 in the previous two weeks, further fell to 2 last week, of which one occurred in Greenock and one in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had risen from 66 to 84 in the preceding three weeks, were 82 last week, and were 29 below the number in the corresponding week of last year. The causes of 59, or nearly 12 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 21·5 and 20·0 per 1000 in the preceding two weeks, rose again to 20·7 during the week ending Oct. 15th. During the thirteen weeks of last quarter the death-rate in the city averaged 23·1 per 1000, against 17·1 in London and 16·1 in Edinburgh. The 139 deaths in Dublin during the week under notice showed an increase of 5 upon the number in the preceding week, and included 4 which were referred to different forms of "fever," 3 to diarrhœa, and not one either to small-pox, measles, scarlet fever, diphtheria, or whooping-cough. In all, 7 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 1·7 in London and 4·7 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 3 in the preceding two weeks, further increased to 4 last week. The fatal cases of diarrhœa, which had been 20 and 9 in the previous two weeks, further declined to 3 last week. The 139 deaths registered in Dublin last week included 34 of infants under one year of age and 31 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase upon those recorded in recent weeks, while those of elderly persons showed a further decline. Five inquest cases and 5 deaths from violence were registered; and 46, or nearly one-third, of the deaths occurred in public institutions. The causes of 9, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF MEDICAL STAFF.

Surgeon-Major Foss (lately on retired pay) has been posted to Dublin for duty. Surgeon-Captain Bond has embarked for duty in Barbadoes. Surgeon-Major-General Madden has resumed his duties as Principal Medical Officer at Malta. Surgeon-Captain Burnside has been transferred to the North British district. The following officers from the School of Instruction at Aldershot have joined the stations named:—Surgeon-Lieutenants Thurston and Smythe, London; Surgeon-Lieutenants O'Reilly, Walker, Moore, Jones, Marden, McDermott, Hodgens, McNaught, and Conden, Ireland; Surgeon-Lieutenants Faichnie and Mansfield, Colchester; Surgeon-Lieutenants Lewis and Chambers, Dover; Surgeon-Lieutenant Slayter, York; Surgeon-Lieutenant Reed, Devonport; Surgeon-Lieutenant Erskine, Woolwich; Surgeon-Lieutenant Thompson, Chatham. Surgeon-Major McNeece has been granted sick leave to England from Bombay.

ARMY MEDICAL STAFF.

Surgeon-Captain J. D. Moir has resigned his appointment as a medical officer attached to the 2nd Battalion Grenadier Guards. The following officers have been ordered home during the trooping season on completion of tour of Indian service:—Oct. 8th, Surgeon-Major W. L. Lane, M.B., and Surgeon-Captain S. C. Phipson; Dec. 31st, Surgeon-Captain F. A. B. Daly, M.B.; Jan. 11th, Surgeon-Captain T. H. Corkery; March 12th, Surgeon-Major G. D. Bourke and Surgeon-Captain H. H. Brown, M.B.; March 25th, Surgeon-Captain F. T. Skerritt; April 6th, Surgeon-Lieutenant-Colonel N. B. Major and Surgeon-Captain F. S. Le Quesne, N.C.

YEOMANRY CAVALRY.

Herts: Veterinary-Lieutenant W. S. Harrison resigns his commission.

INDIAN MEDICAL SERVICE.

Surgeon-Major W. K. Hatch, I.M.S., proceeded to England on privilege leave on the 24th ult. per s.s. *Oriental*. Surgeon-Captain C. J. Addison, A.M.S., is expected from England for duty in India. Surgeon-Captain C. M. Moore, I.M.S., proceeded to Agar from Deesa on the 23rd ult. to join the 2nd Regiment Central Indian Horse. Brigade-Surgeon-Lieutenant-Colonel G. Thomson, I.M.S., has been appointed Principal Medical Officer of the Peshawur district. Surgeon-Captain J. E. Trask will proceed to Bombay to take Medical Charge of the 3rd Dragoon Guards during their voyage to Natal in the R.I.M.S. *Clive*. Surgeon-Captain G. S. Thomson, M.D., has been appointed to the Medical Charge of the 4th Regiment (1st Battalion Rifle Regiment). Surgeon-Captain H. C. L. Arnim has been appointed to the Medical Charge of the 10th Bombay Infantry. Surgeon-Captain G. E. Fooks arrived at Bombay on the 2nd ultimo from furlough in England. Surgeon-Captain J. Fayrer, M.B., M.S., has been appointed to the Civil Medical Charge of the Muttra district, in addition to his military duties, from the forenoon of Sept. 1st, 1892. Surgeon-Major J. J. Falvey, A.M.S., having been struck off the strength of the Bengal command, is directed to return to England on transfer to the home establishment. Surgeon-Captain H. W. Stevenson and Mr. H. A. Hall respectively delivered over and received charge of the Yerrowda Central Gaol on Aug. 31st, 1892. Surgeon-Major H. M'Calman, M.D., and Assistant Surgeon P. P. Moolan respectively delivered over and received charge of the Ratnagiri Gaol on Sept. 22nd, 1892. Surgeon-Captain J. P. Barry, M.B., and Surgeon-Major J. S. Wilkins, D.S.O., respectively delivered over and received charge of the Bijapoor Gaol on Sept. 22nd, 1892. Surgeon-Major W. Barren and Surgeon-Captain R. W. S. Lyons, M.D., respectively delivered over and received medical charge of the Yerrowda Central Gaol on Sept. 26th, 1892.

NAVAL MEDICAL SERVICE.

The following appointments have been made:—Staff Surgeon William Rogerson White, B.A., M.B., has been promoted to the rank of Fleet Surgeon. Surgeon D'Arcy Harvey to the *Vernon*, additional, for disposal; and Surgeon C. Alsop to the *Melita*. Surgeons and Agents: W. O'Donnell at Tribune; J. E. Lanyan at Portnoo.

THE LATE DEPUTY-SURGEON-GENERAL FASSON.

The Edinburgh Royal Infirmary has sustained a great loss by the death of its superintendent on Saturday, the 15th inst. The late Deputy-Surgeon-General Charles Fasson united in his personality several qualities which are not invariably found associated together. He possessed qualities of head and character. As a young man he was very handsome, with a pleasant, genial expression of face and a fine manly presence. He was a very able organiser and administrator and was universally recognised as an admirable official at the head of a big institution like the Edinburgh Royal Infirmary. His judgment was sound; he was full of initiative, and at the same time industrious and conscientious, added to which he was such an amiable and courteous gentleman, with the stamp of sincerity and truth in his bearing and intercourse with everybody, that he was not long in making friends in Edinburgh, where he was greatly respected and beloved. When he relinquished the Army to take up the post of Superintendent of the Royal Infirmary he went to Edinburgh as a comparatively unknown man and a stranger there, and it is pleasant to know that his regard and affection for its people went on increasing year by year and he delighted to recognise and express this to his friends. Deputy-Surgeon-General Fasson's service in the army extended throughout a period of about twenty-seven years. He had seen a good deal of active service abroad, notably in the Indian Mutiny. At the time of his retirement he held the post of Registrar at the Herbert Hospital, Woolwich. His military service and training, no doubt, proved advantageous to him subsequently in civil life, at the head of a large hospital. He was appointed to the Edinburgh Infirmary in 1871. When the present buildings were opened the duty of transference from the old infirmary fell to him, and he carried out the work with great ability and to the entire satisfaction of the managers of that institution. He held the post of superintendent from 1871 to the time of his death, and the good feeling that existed between the medical staff, the managers and himself was thoroughly mutual. He had the sincerest interest in the welfare and progress of the Edinburgh Infirmary and University. Deputy-Surgeon-General Fasson's health had lately been delicate. He had an apoplectic seizure not long ago, which was followed by hemiplegia; he was in his seventy-second year at the time of his death. His brother was a distinguished army medical officer, and died in the service some years ago.

SOLDIERS' RATIONS.

We recently called attention to the advisability of doing something in the way of providing the soldier with the means

of procuring some refreshment before his early morning parade, such as a cup of tea or coffee with a little bread. A cup of cocoa would really be preferable to either of the other beverages, especially during the cold weather, but this might fairly be left to the soldier's individual choice. We notice that this question of the soldier's ration forms the subject of correspondence in some of the Indian journals. The soldier in India is exempted from payment for groceries whilst in the field; the Indian Government issues these free on active service. But some of our soldiers in India are asking for the charge for groceries to be abolished altogether, and contend that when they went to India they understood that rations were issued free to the British soldier whilst serving there. Complaints are also made as to the bad quality of the rations supplied. On the other hand, and with much greater regard to accuracy, we think, others contend that it is entirely the soldier's own fault if he is not supplied with good rations, and that it is the cooking that is to blame. A soldier in India has only to complain of his rations and his objection, if reasonable, is always attended to at once. The natives of India are usually excellent cooks; still it is not every native that can cook, and it is not always easy to secure good ones; moreover, the cook-houses are not always so clean or so good as they might be. These are matters, however, which, after all, greatly depend upon the internal economy of a regiment. The cooking for the soldier in India is really an important consideration as far as the maintenance of his health and strength is concerned, and no reasonable pains should be spared to make the soldier contented in this respect.

THE FALL IN THE RUPEE.

The curtailment of income of officers and others serving in India by the great fall in the value of the rupee is really a serious matter. Medical officers of course come in for their share in this unfortunate loss with the rest of the army, and civil officials, and those who have to transmit money home—as so many have—for the support of their wives and families and the education of their children are great sufferers. There is no doubt that the Indian Government is fully alive to the discontent which exists and is spreading amongst the members of the European services in India, and some intimation as to the action that will have to be taken, sooner or later, by the Secretary of State and Treasury in this country is anxiously looked for.

PROGRESS OF CHOLERA IN INDIA.

According to the latest intelligence in the Indian papers it would appear that cholera is not only prevalent in the Bittan country, north of Gomal Pass, but has also broken out in the Wano Post in Waziristan, lately occupied by the Afghan troops. Cholera is also stated to be rapidly spreading in Peshawur, both in the city and cantonments. The Royal Welsh Fusiliers are under canvas, and there are cases also in the Royal Artillery and Royal Scots Fusiliers. In cantonments the epidemic appears to be confining itself to Europeans only. Brigade-Surgeon-Lieutenant-Colonel Thomson has arrived from Patiala and taken over the administrative medical charge from Brigade-Surgeon-Lieutenant-Colonel Brown.

THE LATE DEPUTY-INSPECTOR-GENERAL BRAKE, R.N.

One of the old school of naval medical officers, Mr. Wm. Newman Brake, R.N., Deputy-Inspector-General of Hospitals and Fleets, passed away at Porchester, Hants, on the 5th inst., aged seventy. He was an old St. Bartholomew's man and was a dresser to Lawrence. In his early career in the service he was an esteemed friend of the late Captain Burgoyne, who went down in H.M.S. *Captain*. In later years he had the confidence of the two present naval lords, Sir Anthony Hoskins and Sir Frederick Richards. The deceased officer entered the navy in April, 1845, was promoted Staff-Surgeon in January, 1855, Fleet-Surgeon in 1867, and retired with the rank of Deputy-Inspector-General in September, 1878.

CANTONMENT GENERAL HOSPITALS.

Funds have been allotted for the completion during the current year of general hospitals at Bareilly, Allahabad, Jubbulpore and Peshawur.

THE LATE SURGEON-MAJOR CARLAW, M.D.

Surgeon-Major J. Carlaw, M.D., Retired List, Army Medical Department, died at the Crescent, Sandgate, on the 10th inst. He joined the army April 22nd, 1858, became Surgeon-Major April 1st, 1875, and retired Aug. 12th, 1878.

The "Diario Oficial" of the Republic of Paraguay announces that Dr. William Stewart, British subject and Honorary Colonel of the National Army, is now a Paraguayan citizen.

Correspondence.

"Audi alteram partem."

MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—I am particularly anxious to make it plain that although these coöperative medical businesses grotesquely masquerading as provident institutions must be dealt with by appearing to treat harshly the surgeons connected with them, this is more apparent than real. It is equally for their benefit as for the benefit of their professional brethren that this course is pursued. I may be permitted to point out that, as a matter of fact, it was at the direct request of several surgeons to medical aid associations that the Medical Defence Union has asked the General Medical Council to express its judicial opinion that their conduct is "infamous in a professional respect" within the meaning of Section 29 of the Medical Act, 1858. These surgeons recognise that only by this means can a radical reform be accomplished. May I ask medical aid surgeons who have not yet communicated with me to do so? I will take care that their names shall in no way be made public without their express permission, for I know this might lead to their instant dismissal; but their coöperation will be valuable. May I also appeal to the practitioners who know the working of these aids to enlighten their brethren? Many men resident in large towns do not understand the question, while those in small towns have too good reason to appreciate the evil consequences of the system. The following resolution would be a fitting one on which to raise the question for discussion at meetings of the branches of the British Medical Association and other medical societies: "That anything which tends to degrade the professional standing of medical practitioners, to diminish their self-respect or to detract from the quality of their professional work is detrimental to the public interest, and that the system and practice carried on by medical aid associations is calculated to produce this evil result."

I shall be glad to forward to any medical man a copy of my letter to the General Medical Council or a sheet of a petition addressed to that Council praying that this question may be taken into their consideration. The scope of the word "covering" is far too wide to allow of its arbitrary restriction to those cases where the unqualified person "covered" actually and personally practises medicine. In its intention and without unduly stretching language it includes by implication those cases in which, although not personally engaged in the actual practice of medicine, an unlicensed person is pecuniarily interested in the conduct of such practice.

The unqualified man who toils not but participates in fees earned by a duly qualified medical man is in a sense a much greater offender than the unqualified man who actually works and earns money, although to do this he occasionally is "covered" by a qualified man. The offence of the coverer in the former case, in thus putting his licence at the disposal of unqualified persons, is surely not less professionally discreditable? But, even apart from the "covering" line of argument, I contend, with regard to the authority of the General Medical Council in this matter, there is no *non possumus*. If the self-evident proposition be accepted that anything which tends to degrade the professional standing of medical practitioners, to diminish their self-respect, or to detract from the quality of their professional work is detrimental to the public interest, and if it be demonstrated that the system of medical aid associations does these things, it follows that not only is the profession being deeply injured, but, what is of more importance, the public suffer also. Under such conditions the General Medical Council can hardly come to any other conclusion than that the toleration and sanction of this system by duly qualified practitioners are professionally "infamous," and the Court of Appeal has held that if the Council, acting *bonâ fide* and after due inquiry, adjudged a medical practitioner guilty of "infamous conduct in a pro-

fessional respect," no court, not even the House of Lords, has jurisdiction to review their decision.

The evil of these medical aid associations is at last being recognised by the lay press of the country, which with almost one voice is now crying out against the abuse in far stronger language than in even the medical journals. When Mr. Masterman told the General Medical Council that since the foundation of this new-fangled medical system a frightful rise in infant mortality was taking place in Stourport, its significance was disputed and not recognised, as I will show it should have been. Mr. Masterman says: "For the ten years ending 1889 the average death-rate was 15·0—1890, 19·2, 1891, 20·23—for the month of January, 1892, 37·7 per 1000, and in the rural districts still higher—in other words, forty more persons died in Stourport, or, with the district, sixty above the average." In reply it was said that this increase of the death-rate did not apply particularly to members of the Medical Aid Association, but to the population as a whole. It was not shown, however, that these two things—(1) the Medical Aid Association and (2) the population as a whole—are practically identical. In 1891 the population of Stourport was 3504, while the number of members receiving medical attendance from the Medical Aid Association was 3058, although it is probable that some small proportion of these lived outside the town.

All thoughtful men must recognise how directly the public suffer by this system; while with regard to ourselves I have no hesitation in saying that no greater injury, no greater insult, no greater systematic robbery, has ever been offered to, or submitted to by, the profession.

I am, Sirs, your obedient servant,

LESLIE PHILLIPS,
Secretary, Medical Defence Union (Limited).

Birmingham, Oct. 18th, 1892.

To the Editors of THE LANCET.

SIRS,—I see in a leading article which appeared in THE LANCET of last Saturday you challenge us, the medical officers of these societies, to defend our position, and I beg formally to accept the challenge. I am of course aware that in opposing the opinion of the editors of a journal by letters addressed to themselves I am going to law with an absolute sovereign in the courts of his dominions, and that, even when I am obliged to comment unfavourably on your remarks, I have to rely solely on your sense of justice to give my reply publicity. Some three months ago a correspondence on this subject appeared in THE LANCET, and then our supporters gained so complete a victory that our last two letters remained, and still remain, unanswered. We should therefore, it seems to me, be justified in replying to a renewed attack by asking our opponents, if their courage has revived, to reply to these letters, and I assert, without fear of contradiction, that when you—in spite of the fact that when last assailed we repelled the attack and silenced the guns of our enemy—pronounce our position "indefensible" you do us a great wrong. Our position as that of men without capital can be justly compared only with that of men who have not practices of their own, and I therefore, in commenting on your remarks, shall have frequently to contrast it with that of assistants to private practitioners. I wish, then, to premise that want of capital is the point on which we agree, and that I do not say we are in the position of assistants to the associations.

I shall now proceed to criticise such of the statements in your article as seem to require it. You assert that medical associations are "by no means creditable to the working classes," but as you give no proof of the statement, and as we hold an exactly contrary opinion, we can only say we are amazed to find anyone differ from us. Doubtless you have reasons for your opinions. May we ask you to let us know them? You tell us we receive "a scanty allowance," and our answer is that it is more than we could get in private practice or we should not accept it. How can you taunt us with being badly paid when you publish advertisements every week wherein qualified men of mature years, with good testimonials and many other advantages, are offered salaries of £70, and even £50, per annum in-doors? Very rarely indeed do you advertise more liberal offers to men without capital than those of medical aid societies. A few of your words describe so exactly the position of an assistant to a firm of medical men that I may be allowed to quote them in full:—"The medical officer is made not only to do medical duty, but to make money for those whom he serves. In other words, the Medical Aid Association is a 'business,' the work of which has to be done and can only be done by the medical officer, but the profits go to the association, *alias* the company." How many thousands of pounds are yearly earned by the toil of unfortunate medical assistants at work which the principals cannot do (they are doing already as much as they are capable of, suppose)? Where does this money go if not into the pockets of "the firm"? Can you expect an assistant to care where it goes unless you offer him a share of it? Would it not be better for him to pay to an association 5*s.* out of each midwifery fee he earns than to pay them all to an employer in private practice, as many assistants are obliged to do? The answers to these questions must, we believe, tend to show that the *employé* of the association is in a better position than that of an ordinary assistant.

You say that "there is much to be said" for the view that the medical officers "cover" the associations because the latter are "profitably interested in medical practice." We shall be glad to hear any part whatever of the "much," and meanwhile express our opinion that the contention is childish, and proceed to give our reasons for thinking so. Taking the words as they are used, without any qualification, we see the absurdity the moment we reflect that our wives and children, our servants even, and the tradesmen we employ, are "profitably interested" in our practices. Our opponents now probably will wish to qualify their expression and will tell us they meant a "direct monetary interest." Let us agree to this and consider the new view they put before us. Cases occur daily in which, a medical man having died, an assistant or locum tenens carries on the practice till it is sold, or a relative of the deceased qualifies, or his widow marries another medical man, or in some instances indefinitely. Is the assistant to be considered guilty of "covering" in such a case? Similar cases are those in which a practitioner's widow sells a practice for an annuity to be paid out of, or for a percentage of, the proceeds. Similar also are the cases where a lay friend advances money to buy a practice on the understanding that he is to be repaid out of the proceeds. In none of these cases could we justly punish the medical man, and yet if we are not prepared to do so we must abandon altogether the phrase "profitably interested."

You blame us for taking well-to-do patients from other medical men; but all other practitioners do the same. Is there a case on record of a medical man refusing to treat the ex-patient of a professional brother whose fees are higher on the ground that the patient was rich and could afford to pay the higher fees? Till you produce such instances you cannot justly accuse us of doing worse than others. You pass an unfavourable judgment on certain employers who refused to raise an *employé's* salary after five years' service, but you cannot expect us to agree with you till you show us that the *employé* was worth more than he received. Is his market value, as tested by your advertisement columns, greater than his present income? If so, why does he not get that larger salary elsewhere? Can you assure us that the association in question did not intend their refusal as a gentle intimation that a resignation would be accepted, or that they were not restrained from dismissing him solely by the thought that they would thereby throw him on the tender mercies of his fellows, who seldom give more than £150 a year? Since you have passed sentence on the employers, we presume you have the information required to enable us to judge correctly, and we respectfully ask you to make it public.

You assert that the income of medical associations is "derived solely from medical fees," and here, again, we cannot agree with you. The members know that only a part of their subscriptions goes to pay their medical officer, for out of them have to come the rent of the consulting-rooms and surgery, the cost of drugs, of conveyance, of fire and light, of instruments, and of many other items. If after all these are paid a portion of the fund is left it must belong to the association, for the medical man has had what his agreement entitled him to. If the association feels itself strong it returns a part of his subscription to each member, as it has been proved by the existence of a surplus that they have paid too much. If it fears that "bad times" may come it provides for them by buying out the consulting-rooms &c., or by investing the money so as to secure an income for a bad year; so that the medical officer's salary, the rent and so forth may be forthcoming even should some calamity reduce the members to half their previous numbers. It would seem from your article that you think it reasonable that associations should rent houses, but infamous that they

should buy them. Is my view of your meaning correct? We, Sirs, have escaped from the slavery, the hard work and the bad pay which were ours as assistants to medical men to comparative freedom, comparative ease and comparative affluence. The working classes were oppressed by our oppressors, for if they sought cheap dispensaries they were given cheap and even worthless drugs; and if they joined clubs they were no better off in this respect, and were bullied into the bargain. We united our forces; their pence provide us with a competency; they buy us drugs and supply us with all other essentials; and we laugh at our former masters. Of course the latter are not satisfied. Not only have their slaves escaped them, but they have taken off what the masters regard as their private property, their *matériel*, and both reduce their income directly, and by reducing competition raise the salaries of assistants. That line of action which causes them loss they naturally consider low and disgraceful, and they will do their utmost to put down the associations and to force us to serve them as of old. A great victory has been theirs of late, for they have won over—we say it with deep emotion—the Editors of THE LANCET to their way of thinking. We feel it much. You threw open your columns to us last summer, and metaphorically saw fair play while we conquered. Our opponents either remained silent voluntarily or, becoming unparliamentary under the sting of defeat, were refused publication. Now you seem to have forgotten all this, and publish the astonishing announcement that we hold an indefensible position!

A step further is to be taken, you say, and the subject brought again before the General Medical Council. Well, what reason have we for thinking that this body is less wise now than it was last May, when it decidedt hat it was "not their business"? Does anyone fancy these gentlemen are foolish enough to enter on a hopeless contest with the democracy of this country? As well might a porcelain vase expect to collide victoriously with an iron cauldron as the General Medical Council to reduce to their former, or even keep in their present, position those "mechanics and tradesmen" whom you seem to value so little. When Mrs. Partington's mop avails against the tide then will the Medical Defence Union subdue the people, but till then the members of the Union would find throwing stones at the moon a more remunerative occupation than attacking such deservedly popular institutions as the Medical Aid Associations.

I must apologise for the length of this letter, which is due to the length of your article against us.

I am, Sirs, yours sincerely,

Oct. 18th, 1892. VERAX.

To the Editors of THE LANCET.

SIRS,—Dr. Leslie Phillips, in his paper about Medical Aid Associations, takes an entirely one-sided view as to the small fee the doctor receives for his work. As a matter of fact the drudgery of a club practice, at least in the provinces, is not done by the doctor himself, but by his unfortunate assistant, who in nine cases out of ten is unqualified. By your kindness I have before now expressed my views against the hateful practice of putting unqualified men in charge of surgeries; but I am not going to ignore the proper unqualified man, if I may be allowed to so call him—I mean one who has passed all but his final, but for some reason cannot qualify. I contend that qualified men cannot and will not do the same amount of drudgery work as the unqualified. The major portion of a club and dispensary practice does not require a qualified man, as it consists in treating nothing particular, but almost entirely a class of chronic hypochondriacal females who really visit the surgery for a gossip with the doctor, and in ninety-nine cases out of a hundred a bottle of Epsom salts and burnt sugar will cure all of them. I can assure you, Sirs, in a practice like the above an M.B. Lond. or F.R.C.S. Eng. would simply be lost. He would have no opportunity of utilising his superior knowledge. My predecessor was an unqualified man, but with no medical education whatever. He had not even passed a preliminary examination and had never been inside any hospital or infirmary attached to any university; in fact, he professed to be quite ignorant of the names of any of the bones of the body, and even of any of the diseases he treated. Yet for a period of nearly ten years he had charge of a surgery, attended midwifery, performed vaccinations, visited the people's homes and prescribed at the surgery. I confess I cannot do the same amount of work as this person, nor am I ashamed to say that I cannot diagnose the cases so quickly as he did, nor talk so professionally as did my predecessor to the patients. Without a doctor the Medical Aid Association could not exist, and if Dr. Leslie Phillips could infuse into doctors a feeling of unanimity to refuse to accept the medical officership of these Medical Aid Associations, then some good would result. But in these days of competition and the multiplying of quack remedies what one doctor would refuse fifty are ready to accept. My principal has actually a dispensary charging the modest sum of a halfpenny a week for children up to the age of fourteen and one penny for adults. These sums include visits and medicine and appliances in case of accidents. Out of these deduct commission for collector, price of labels, corks and physic, then see what is left for the doctor. By these clubs and dispensaries I assert more work is put on the doctor for but a small fee, and the people are able to spend more in drink. This is the case in the town I am in now, and I am sure there are many who could corroborate me. Thanking you in anticipation,

I am, Sirs, yours faithfully,

Oct. 17th, 1892. GENERAL PRACTITIONER.

To the Editors of THE LANCET.

SIRS,—I have read with much interest your article in last Saturday's issue. I trust the resident medical officers of the various associations will now put forward all their exertions to emancipate themselves from the yoke of thraldom which they have been long labouring under and will loyally come forward and assist their brethren in exposing the iniquitous system of "sweating" which is no doubt being carried on with impunity in the greater number of these associations. All information should be addressed to Dr. Leslie Phillips without delay, which of course will be regarded as confidential. It is to be hoped also that the general practitioners will be fully alive to their own interests and communicate also all information bearing on the grievances they suffer from the working of Medical Aid Associations, and the injury they are causing both to the profession and the general public. I remain, Sirs, yours faithfully,

Oct. 18th, 1892. A MEDICAL AID OFFICER.

EXPERIMENTS ON ANIMALS.

To the Editors of THE LANCET.

SIRS,—Whether it was wise for the Church Congress to discuss the subject of animal experimentation or not it would be useless to enter into. The majority of the subjects-committee determined that such discussion should take place, and, this being the case, it was right that the best exponents of the two sides should be selected. For my own part, I believe that the meeting has done a great deal of good, for the experimental research has rarely or ever before had such a public hearing. The anti-vivisectionists, through an active and well-organised association, are working systematically throughout the country. At the Church Congress Art Exhibition a stall was erected for the distribution of their literature, and tracts were freely circulated even at the doors of the great Congress Hall. It seems to me that it is incumbent upon the members of the profession to be educated in this matter, and there should be some quick and sure way of imparting knowledge to those who wish to speak or write on this subject. It is useless for a man, unless he is well prepared with the subject and is an apt and ready speaker, to get up at an ordinary anti-vivisectionists' meeting. The speakers chosen are men well versed in the way of dealing with the gentler sex and with men of illogical minds. I believe that in no town in England at a public meeting, were the profession well represented, would the anti-vivisectionists carry the majority with them. The general public want to know the truth on this subject, but so far they have had only the opportunity of hearing one side.

I am, Sirs, yours truly,

Folkestone, Oct. 17th, 1892. W. J. TYSON.

AN IMPORTANT QUESTION OF ETHICS.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me a small space in your columns to call the attention of the medical profession to a question of principle involved in an inquiry which, I believe, is about to be entered upon by a subcommittee of the Manchester Medico-Ethical Association; and may I beg for an expression of your own opinion and the opinions of con-

sultants throughout the country who may consider it worth while to give the matter a moment's consideration? About the beginning of this year a gentleman called upon me and asked me if I would see a case with him in consultation. He gave me his name and address and I met him as proposed. I had vaguely heard that the practitioner in question had started in a somewhat humble way by keeping a dispensary; and I had some dim recollection of a complaint that one of our leading consultants here had met him in consultation. Having heard of these things, I had to decide before going to the consultation on what principle I must proceed. I found from the Register that the practitioner in question was a qualified member of the medical profession; I had never heard that his professional conduct had been publicly called in question; and there was no reason in our personal relations why I should refuse to meet him. I had also to remember that possibly the interests of a patient were involved. Some weeks afterwards I received a letter from a general practitioner residing in the same district as the gentleman whom I had met in consultation inquiring if I was aware of his neighbour's character and the opinion entertained regarding him by other members of the profession in their district of the city. Believing my correspondent to be friendly, I explained the grounds on which I had to decide the question of meeting such practitioners in consultation, and I had little doubt at the time that I was addressing a reasonable man. The next incident was a letter from my correspondent, containing a veiled threat to deprive me of any consultations that he could influence if I did not promise to decline to meet his neighbour in consultation in the future. I need not say what I replied to that letter. Yesterday I attended a meeting of the committee of the Manchester Medico-Ethical Association in my capacity of member of that committee, and to my surprise I was asked by one of the secretaries if I had any explanation to offer regarding my "case." I then learned that my former correspondent had brought a formal complaint against myself on the ground of the consultation referred to, and that I was in the position of defendant in connexion with some supposed breach of medical etiquette. That the committee of this Association are really serious seems to me to be proved by the fact that they have already, at the instance of the secretaries, nominated a subcommittee to try the case.

If you open your columns to the discussion of the principle involved in this matter I shall ask you to permit me on a future occasion to say something about the judicial functions of the Manchester Medico-Ethical Association. I will only say now that it is well known that their committee sought legal advice on the question of framing a "black list" and of prosecuting some member of the medical profession who was accused of underselling his neighbours by means of a dispensary, but that on economical grounds they decided not to proceed. I should also add that the deliberations of the subcommittees are supposed to be secret, and their conclusions are stated without reason assigned. Consequently one result of most of their inquiries is the spread of injurious gossip about somebody, originating in obscure hints from the irresponsibles who sit in judgment. One obvious question arising from this case is—Who is to be the inquisitor? If the consultant, how far is he to go in his inquisition as to the character and professional position of qualified members of the medical profession whom he is asked to meet? And that inquisition would also involve the question of when a member of the profession who commenced practice in a humble, perhaps dubiously ethical, fashion becomes whitewashed and a respectable person whom anyone might be proud to meet in consultation. I do not think the answer to these questions far to seek; and but for the existence of a committee of a Medico-Ethical Association which plays at performing judicial functions, I do not think it would have ever arisen; but the matter is to me a real source of worry and annoyance, and I shall be grateful to you if you will insert this letter and either give expression to your own opinion of the matter, or permit any consulting members of the profession who may think it worth while to state their opinion on the principles involved.

I am, Sirs, yours faithfully,

Manchester, Oct. 15th, 1892. W. J. SINCLAIR, M.D. Aberd.

"THE TREATMENT OF MYXŒDEMA."

To the Editors of THE LANCET.

SIRS,—As your annotation on the above subject in THE LANCET of Oct. 15th is apt to convey the impression that hyroid juice is difficult to obtain, and that it is dangerous to give it by the hypodermic method, I wish to point out that this is not really the case. For the benefit of those who may wish to treat cases of myxœdema wiih thyroid juice I may mention that Messrs. Brady and Martin of Newcastle prepare an extract of the thyroid glands of freshly killed sheep in the manner described by me.[1] This extract, which consists of equal parts of thyroid juice, glycerine and 0·5 per cent. solution of carbolic acid, is prepare each week, and I am informed by the manufacturers that it is at present being employed in the treatment of some forty cases of myxœdema. Sufficient evidence has now been brought forward to show that thyroid juice can remove the symptoms of myxœdema. This was clearly shown in the discussion which took place on this subject at the meeting of the British Medical Association at Nottingham last July. It is remarkable how small a quantity of the thyroid juice can accomplish this. A gentleman who was recently under my care with typical symptoms of myxœdema had three drachms of thyroid extract—which are equivalent to the amount of juice contained in two whole thyroid glands—injected in the course of six weeks, when all the symptoms had practically disappeared. There can be no doubt about the efficiency of the remedy; but more extended observations are necessary to enable us to determine the most suitable dosage and the best means of administering it. Formerly I injected as much as twenty-five minims of the extract at a time, but now find that it is better not to give more than fifteen minims in a single dose. This dose of the fresh extract may be given twice a week, and if injected slowly in a part where the skin is loose and not exposed to pressure, with proper antiseptic precautions, unpleasant results rarely follow. The advantages of the hypodermic method are considerable. It is easily carried out, and only requires to be repeated twice a week at first, and afterwards an injection once a week or once a fortnight will maintain the patient in the improved condition. The main object of the treatment is to introduce the secretion of the thyroid gland into the circulation of the patient slowly and in as natural a condition as possible, and this end is attained by the hypodermic method.

I am, Sirs, yours truly,

Newcastle-on-Tyne, Oct. 19th, 1892. GEORGE R. MURRAY.

"REMOVAL OF LEAD FROM THE EAR BY THE USE OF METALLIC MERCURY."

To the Editors of THE LANCET.

SIRS,—I am not unprepared for the criticism of Mr. Ryan and Dr. Barrett in your issue of Oct. 14th. Several chemists have already expressed their surprise that "quicksilver" should have acted in the way I described. The statement of my critics that the syringe was not used prior to the employment of the mercury is "an inference, not a fact." We in this country well know the utility of syringing in cases of foreign body in the ear. In the present case syringes with nozzles of different curvatures were several times applied, with the head of the patient in different positions, quite unavailingly. Yet it is a significant consideration that in the first employment of the syringe after the mercurial application the piece of metal escaped with ease. As over six weeks had elapsed since the primary injury and the patient had been most judiciously treated, inflammatory swelling had subsided, and no rational person who saw the firm impaction of this piece of metal could have attributed it to inflammatory swelling. The piece of lead I used for my preliminary experiment was that thin short lead used to wrap round fishing lines. I have no means here of ascertaining its actual composition, but as the mercury rendered it brittle it was doubtless an alloy and not pure lead. The experiment was a rough one indeed and lacking in scientific accuracy, but it afforded me a hint which the extreme urgency of the case compelled me to at once act upon. I believe that the firm impaction of the metal was largely due to fine processes of it passing into the anatomical foramina and canals. After the quicksilver had been some hours in the ear the patient noticed it running into his throat, as though the mercury had diminished the size of the prolongation of metal in the Eustachian tube. It is possible, too, that the fine processes may have been chemically altered by prolonged contact with the gases and salts of the serum and pus at the temperature of nearly 100° F. I do not gather that my critics observed this

[1] Brit. Med. Jour., Oct. 10th, 1891.

temperature or the possibility of chemical changes in their experiments. On reading their article I at once wrote to the patient. He replies that the metal was "plumber's solder, lead mixed with tin." This settles the question between us, for it is this mixture that my critics found most affected by mercury in their experiments. The original piece of metal is in the custody of the College of Surgeons, and I should be sorry in any way to mutilate it. During the past fortnight there has been extracted from the nose of this patient, by means I need not occupy space in describing, two irregular masses of metal, obviously of the same origin and composition as the metal in the ear. These I have exhibited to Sir William Dalby, who has taken great interest in the matter, as he himself once removed impacted plaster of Paris from the ear by chemical solution. Anyone can see them who cares to do so, and I will in the future have them examined. I was not aware that the prevalent general commercial impurity extended so largely to lead, but when we consider the number of mixtures in use the full consideration of the question becomes purely a chemical one of some complexity. I am convinced of the efficacy of the mercury in the case related, and am content to leave the explanation of undoubted fact in the hands of others. If I have committed any errors in the relation of the case, such errors are purely those of inference, not of fact.

I sympathise with my critics in their efforts to extract the shot from the ear, and must confess that the failure of the mercurial method has disappointed me. I am informed that the composition of shot and ball differs also very widely, and a chemical examination of the metal in their case is as needful as in mine. It would be interesting to know if they have employed the syringe, especially one with a curved nozzle, while the ear is in a dependent position. As they can see the shot "lying on the floor of the canal," I should have expected this to succeed.

In conclusion, I will thank my Australian *confrères* for the interest they have taken in this case, for their ingenious explanation of an undoubted difficulty, and for the courtesy and kindness of their criticism.

I am, Sirs, yours truly,

A. MARMADUKE SHEILD, M.B.CAMB., F.R.C.S.ENG.

Stratford-place, W., Oct. 10th, 1892.

CORROSIVE SUBLIMATE INJECTIONS IN LUPUS.

To the Editors of THE LANCET.

SIRS,—Dr. Cowan Lees' suggestive remarks on the treatment of inoperable malignant neoplasms by the bichloride of mercury in oil in THE LANCET of Oct. 15th, induces me to refer to the treatment of lupus in its initial stages by the subcutaneous injection of corrosive sublimate in 1 per cent. aqueous solution, five or six minims of this being injected into the infected part with a suitable syringe. Three years ago I showed a patient before the Northumberland and Durham Medical Society affected with hypertrophic lupus of the left ala nasi, who had undergone the treatment and eventually recovered with only slight loss of tissue. In another case not of a hypertrophic character the patient recovered after a single injection, the site of the lesion being also in the left ala. This is now perfectly sound, but the seat of a round perforation and slight atrophy. In another case where the lupus was situated just under the left ala nasi, extending to the floor and slightly on to the septum naris, with considerable swelling of surrounding parts, three injections sufficed to cure, little recourse having been made to other remedies. It will be observed that I use a stronger solution of this salt than Dr. Lees, but it is the strength proposed by the author of the treatment, whose name I cannot for the present remember. The injection causes very considerable reaction with swelling of the tissues now and then, going on to the formation of abscess. As to its merits, as I have shown in lupus in its early stages, it is of great value, and I have adopted it as a matter of routine when I meet with suitable cases. I remain, Sirs, yours faithfully,

WM. ROBERTSON, M.D. Glas.

Newcastle-on-Tyne, Oct. 19th, 1892.

AN UNUSUALLY THIN SKULL.

To the Editors of THE LANCET.

SIRS,—The following case may be of interest to many, not only on account of being curious, but also from its bearing in a legal aspect.

On Saturday, Oct. 1st, at 5.15 P.M., I was called to see G. B——, labourer, aged about forty-five, who, it was stated, had been fighting. I found him insensible and suffering from fracture of the base of the skull, evidenced by bleeding from the ear; but with very careful examination both at the time and on the following day (Sunday) I could find no marks of violence whatever. He died on Monday morning at 1.15 without having recovered consciousness, thirty-two hours after the fight. I subsequently made a post-mortem examination and found two very slight, scarcely perceptible bruises on the point of the chin, as if caused by knuckles. On opening the cranium I found the base of the middle lobe of the brain lacerated by the plate of bone forming the glenoid fossa being driven in by the condyle of the inferior maxillary bone and a fracture extending across the base of the skull, and on the left side across the squamous portion of the temporal bone and the left parietal; but the bone of the left side of the head (parietal and squamous temporal) was nowhere thicker than the thin plate of a scapula, and the petrous portion of the right side was so friable that I crushed it quite easily with my finger and thumb. The man who is alleged to have caused his death is stated by several witnesses only to have struck him once, and was far too drunk to have hit very hardly.

I am, Sirs, yours faithfully,

FRANK OLDFIELD, L.R.C.P. Edin.

Boyson-road, S.E., Oct. 17th, 1892.

PROPAGATION OF EPIDEMICS.

To the Editors of THE LANCET.

SIRS,—Adverting to the letter from Mr. Sherman Bigg in THE LANCET of Oct. 8th, under the heading, "The Propagation of Cholera," it might be interesting to quote the following passage from the Oration delivered before the Medical Society of London in the spring of 1820—viz., "I am aware the expression 'pestilential constitution' has been objected to on the ground of its involving the supposition of a latent undefined state of the air which it has been stated is nothing more than a creature of the fancy. But if we consider that the phrase is used to denote an ultimate fact or that state of things when the whole complication of causes which conspire to originate or propagate pestilence takes effect it is not unphilosophical, and when such men as Hippocrates, Sydenham, Bacon and Russel thought it necessary to take such a fact or principle for granted. I do conceive that we of the present day who have not witnessed what came under their individual observation are not at liberty to reject it because we cannot explain the cause. I therefore assume that during the prevalence of every pestilence there is a peculiar state of the atmosphere which—whether it be called corruption, as it is by Mead, or pestilential constitution, as by others; whether it be the absolute or only the concurring cause; whether it be a principle or only a quality—is no more necessary to be known in reasoning upon its effects than a knowledge of the gravitation, principle or power is essential to the proof of the existence of the law."[1] It seems legitimate to maintain that there may be such a condition of the atmosphere as that referred to above having a subtle affinity for the propagation of contagium and equally a pernicious effect on the resisting power of animals (man or otherwise) to become infected by that particular contagium. Otherwise, is it possible to understand how it is that some diseases which may be endemic in a locality pass from the sporadic to the epidemic type, and yet under continuous local conditions revert to their original character? Probably it may be that the contagium of a disease increases in such "a peculiar state of the air," thus leading to an epidemic, and then diminishes as it itself exhausts the pestilential pabulum or "constitution."

I am, Sirs, yours faithfully,

Sanitary Institute, Oct. 15th, 1892. C. E. MACNAMARA.

"NOTIFICATION OF INFECTIOUS DISEASE."

To the Editors of THE LANCET.

SIRS,—Dr. Corfield cites the Local Government Board as having ruled in accordance with his views on this subject, and one can only say, "pity 'tis 'tis true." I agree nevertheless with Dr. Goodhart in thinking that, whatever the letter of the

[1] Vide Hancock on the Laws of Pestilence, pp. 31 and 32.

Act may be, it cannot have been its intention to make each one of a number of medical men who may have seen an infectious case notify the same, such an obligation being neither in accordance with reason—Dr. Corfield admits that "he does not want more than one certificate of one case"—nor with economy in the expenditure of rates. The word "every" in the quotation from the Act, commencing "Every medical practitioner" &c., may obviously be read as implying one of two things: (1) a provision that the Act shall not be frustrated by one man not notifying his infectious cases; or (2) that every infectious case must be notified by each medical man who may see it even when two or three do so. The latter is certainly a strained interpretation and, with all due respect to Dr. Corfield, the authority that "every month sanctions payments to two or three medical men for certifying a single case" in my opinion by so doing opens the way to confusion in its returns and sanctions an unnecessary expenditure of public funds.—I am, Sirs, yours faithfully,

Hull, Oct. 15th, 1892. G. F. ELLIOTT, M.D. Oxon. &c.

WILLIAM HARVEY AT SUTTON PLACE.

To the Editors of THE LANCET.

SIRS,—The conjecture in your leading article of Sept. 24th, that the great William Harvey was sent for to Sutton Place, near Guildford, to attend a grandchild of the Countess of Arundel in 1619, is quite correct. I happen to have in the press a volume giving a history of the house, which has been for some time in the occupation of my family. When my father was making some alterations in 1875 a deed was found executed by Anne Countess of Arundel, April 13th, 1621. She was in occupation of the house during the absence abroad of the owner, Sir Richard Weston, who was a distant cousin of the Howards. Undoubtedly William Harvey stayed in the house, as did many other historical personages from time to time:—Henry VIII., Catherine of Aragon, Wolsey, Thomas Cromwell, Queen Elizabeth and her court, and many others. I am, Sirs, yours faithfully,

FREDERIC HARRISON.

Westbourne-terrace, W., Oct. 14th, 1892.

To the Editors of THE LANCET.

SIRS,—I see in your issue of Sept. 24th that the celebrated Dr. Harvey is mentioned as having been called in from London to attend a child at Sutton Place near Guildford. Your article is very interesting, as I am now the owner of the property through my mother, who was a Weston. Perhaps you will be interested to hear that the history of this house is about to be published soon by Macmillan, with many illustrations &c. I am, Sirs, yours truly,

Guildford, Oct. 12th, 1892. F. H. SALVIN.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

The Food of Seamen.

AT a late meeting of the Tees Port Sanitary Authority the medical officer drew attention to the improper nature of the food served to seamen. In a case where he was present he saw that a crew was supplied with food consisting of "biscuits running alive and stinking meat." It was agreed to bring the matter under the notice of the Local Government Board.

Durham University Intelligence.

Amongst the scholarships in arts, as the results of the late examinations issued on Saturday last, Mr. M. A. Archdall has gained the Medical Scholarship, value £100.

Relief Fund in Newcastle for the Cholera in Hamburg.

A meeting has been held in the Mayor's Chamber, Guildhall, for the purpose of raising a relief fund for the cholera sufferers at Hamburg. The meeting was very well attended and the sum of £300 was subscribed in the room. While on the subject of cholera I may mention that the answer of the Local Government Board to the memorial of the Tyne Port Sanitary Authority came up for consideration at the last meeting of the Tyne Improvement Commission and the answer, in short, refused to grant the Tyne Sanitary Authority increased quarantine powers in case of cholera. It was stated at the meeting that they ought to have larger powers to control the men and their movements when they came into the river a few hours after leaving an infected port. It was the general opinion that the medical officer had discharged his duties well with his limited powers, but that it was impossible for him at present to trace hundreds of sailors after they had left their ships and were dispersed in various parts of the country, and at present they were in the position that if there was a probability of cholera being introduced they had to apply to an authority that knew very little about them. It was agreed, in view of the great importance of the subject, that a special meeting of the Tyne Commissioners should be held shortly.

Ambulance Work in the North.

An important meeting connected with ambulance work at the Elswick Works was held last week. Some idea of the interest taken in the ambulance classes in these great factories may be formed from the fact that last session 230 students entered for instruction, the greater number of whom completed the full course of lectures and instruction under Mr. R. C. Clark Newton, of this city, who was highly complimented on the success of his teaching and work.

Sheffield Medico-Chirurgical Society.

The opening meeting of the session took place on Oct. 13th, when Mr. Snell delivered the inaugural address. Having alluded to the establishment of the *Sheffield Medical Journal*, the President proceeded to consider some of the lessons which he thought could be drawn from a glimpse at the life and work of the late Sir W. Bowman. It was, Mr. Snell said, Sir W. Bowman's habit of exact observation that placed him early in his career among the leading histologists of this century. Reference was made to his influence on ophthalmic surgery, which had been more the result of his oral teaching than of his writings. The distinct personality of the man, his dexterity as an operator, the charm of his manner were all alluded to, but the lecturer said that he was essentially an accurate and close observer, and it was on those characteristics that his enduring reputation rested. The method of Zadig as mentioned by Dr. Lauder Brunton was referred to, and from this Mr. Snell passed on to speak of an aspect in the work of our societies which he thought was worth following out—he meant the after-histories of cases. The time at which a case was recorded might or might not be the most interesting or most important. He believed the Ophthalmological Society was undertaking some such work. A study of the records of the Society had shown him that he had records of the after-histories of many of the cases he had at different times either related or shown before the Society. Some of these he proceeded to sketch. One was the case of a girl with recurrent third nerve paralysis associated with migraine. At the time this case was published (in 1884) only two other cases of the kind had, he believed, been published. He had followed up this case, and at the present time the attacks of migraine persisted and were still accompanied with ocular palsy. Allusion was also made to cases of Graves' disease, to one of sarcoma of the eyeball, which had supervened after sclerotomy for glaucoma after a long interval, and whilst the interior of the eyeball could be illuminated there had been no growth detected. Mr. Snell also gave further particulars of a series of cases of extra-genital syphilis, some of which had already been recorded. Remarks were made as to the lessons to be learnt from these cases. The possibility of ulcers in different parts being syphilitic chancres should be borne in mind. The cases mentioned had come under notice in the ordinary course in an ophthalmic practice; the general surgeon had the opportunity of gaining a far larger experience from a much wider class. After referring to published statistics as to the frequency of non-venereal syphilis, Mr. Snell concluded an interesting address by saying that he hoped he had done something to show that the after-histories of cases were fraught with interest and value if founded on close and accurate observation.

Medical Men as Magistrates.

Dr. Page and Mr. H. W. Newton of Newcastle-on-Tyne have both been placed on the Commission of the Peace for the county and city of Newcastle-on-Tyne. Newcastle has always had in the ranks of the profession men of public power and importance, and it is so still. Mr. Newton has been mayor and may possibly be so again. There is a great public *rôle* for medical men, though it should be one well above the rough level of mere party strife.

At a recent meeting of the rural sanitary authority at

Kirkby Stephen it was stated that the contracts had just been let for the construction of extensive waterworks for a group of villages in the Eden Valley.

Newcastle on-Tyne, Oct. 19th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Aberdeen Royal Infirmary.

AT a meeting of directors held last week, Dr. Scott Riddell, assistant surgeon, was specially attached in that capacity to Professor Ogston, and it was resolved to appoint a second assistant surgeon at the next meeting of directors on the 26th inst. Dr. Riddell is assistant professor of surgery in the University. Candidates for the vacant post are already in numbers in the field and are canvassing eagerly.

Health of Aberdeen.

The death-rate in September was 16·36 per 1000, as against 15·84 in August and against 16·51 in September last year. There had been 307 cases of measles with 4 deaths, as against 63 with 5 deaths in the previous month; scarlet fever, 121 cases with 3 deaths, as against 86 with no deaths in the previous month; whooping-cough, 16 cases and no deaths, as against 45 cases and 8 deaths in the previous month; diphtheria, 6 cases; typhoid fever, 10 cases with 3 deaths; and typhus fever, 3 cases. The average daily number in the City Fever Hospital was 78·9. The medical officer of health again drew attention to the great and urgent want of increased accommodation at the hospital. He said it was absolutely necessary that immediate steps should be taken to provide better accommodation for the nurses, and the Public Health Committee decided to do as the medical officer suggested. Last week 356 cases of measles and 73 of scarlet fever were reported—an increase on the week of 192.

Aberdeen University: Dr. Hamilton on Asiatic Cholera.

At the opening of the winter session in medicine at Aberdeen last week, Professor Hamilton delivered an impressive address on Asiatic Cholera. He first complimented the sanitary authorities for their vigilance in warding off any possible source of contagion from these shores. He then traced the history of the last epidemic from its source in India westwards, showing how it followed the lines of steamboats and railways, and explaining how an epidemic which used to take years to spread from India to the Atlantic, could accomplish the distance now in three months and a half. Cholera is essentially a dirt disease and is carried by dirty people to dirty places. The Holy Well of Mecca is a veritable hotbed of the malady. The disease in Hamburg was traceable to the pollution of the Elbe and Alster, from which the drinking-water was drawn. The famous case of East London and the Lea in 1866 was next quoted, and the lecturer finished by criticising the Aberdeen water-supply and pointing out dangers which might arise in the event of an outbreak of cholera.

Unwholesome Food in Aberdeen.

The sanitary inspector of Aberdeen, in his report as to the inspection of unwholesome food, states that during the month of September he seized 1568 lb. of beef, 850 lb. of fruit, 1085 lb. of wet fish, and 2016 lb. of smoked fish, all of which had been destroyed either by the order of the magistrates or with the owner's consent.

Proposed Hospital for Turriff, Aberdeenshire.

At a meeting of the Turriff District Committee of the County Council, the clerk intimated that it was practically impossible for them to get their fever patients treated at Chalmer's Hospital, Banff, and it was formally agreed to remit to a subcommittee to act along with the police commissioners of the burgh of Turriff in selecting a site and obtaining plans of a hospital to be built at or near Turriff.

The Glasgow Societies.

The working season in the various societies has begun. The Medico-Chirurgical Society was opened last week with an address from the President, Dr. Joseph Coats, on the Infective Theory of Cancer. The first meeting of the Pathological and Clinical Society was held on Monday last, Dr. A. Napier showing two cases of myxœdema, in one of which remarkable improvement, which is maintained now three months after cessation of treatment, had followed the subcutaneous injection of an extract of sheep's thyroid; the second was a well-marked case, in which the same treatment was about to be adopted. Dr. R. M. Buchanan showed some very beautiful microscopic sections of thyroid gland from a fatal case of myxœdema. Drs. S. Gemmell and Lindsay Steven showed an aneurysm of the posterior wall of the transverse part of the arch of aorta in which there had been a remarkable absence of physical signs. Dr. A. E. Maylard showed a traumatic aneurysm of the radial artery which had been removed by extirpation.

Population; Public Health; Glanders.

The medical officer of health for Glasgow has just made his calculation of the population in Glasgow proper for this year based on the number of tenanted houses—namely, 139,038. After deducting 1½ per cent., representing houses not occupied, and multiplying by 4·778 (the average number of inhabitants per house in 1891), the population was estimated as 654,361 persons. Adding to this inmates in institutions, harbour population &c., the population is estimated as 667,531. The death-rate for the fortnight ending Oct. 1st was 18·5, as against 18 for the previous fortnight. Since notification of "British cholera" and "choleraic diarrhœa" became compulsory on Sept. 22nd, twenty-one certificates of the former disease and fourteen of the latter had been sent in, but in none of the cases was there the slightest ground for suspecting a choleraic element in the strict sense of the term. The medical officer of health reports a case of glanders in a man. The unfortunate patient became ill on Sept. 20th and died on Oct. 3rd. He had been employed as a foreman in the service of the Glasgow Tramway Company. Glanders had existed for some time in the stud under his charge, and he believed that an infected animal had coughed or snorted in his face.

Fees for Attendance in Street Accidents.

Some time ago the municipal authorities determined to allow a small fee for services rendered to the subjects of street accidents, especially in cases in which a practitioner had been called by the police. But lately some accounts have been presented not relating to street accidents, and as the four or five accounts rendered per month were felt to be a burden by this wealthy corporation, it has been determined to repudiate such accounts unless the doctors claiming certify that they have made every reasonable endeavour to recover the accounts from the patients or their friends and have failed. As Glasgow has quite the average number of accidents occurring in a large city, it is evident that as only "four or five" accounts have been sent in monthly, the medical men of the city have been doing practically their usual amount of gratuitous and often thankless work. As each individual fee in such cases is small, it is probable that few doctors will put themselves to the trouble of first "worrying patients and their friends." The authorities will have the satisfaction of telling their constituents in November next that they have effected a saving of "four or five" doctors' fees per month. But what a petty and undignified economy for the city of Glasgow!

Opening of the Medical Schools.

This week sees the various medical schools in full swing. In the University the inaugural address was delivered by Professor Cleland in the Bute Hall. The ladies from Queen Margaret's College, thirty or forty in number, present in virtue of the absorption of their college by the University, were seated in one of the side aisles. [We publish part of Professor Cleland's lecture in another column.] At Anderson's College Medical School the session was opened by Professor W. L. Reid, who took for his theme the Life of Smellie, from which many lessons were drawn of courage, perseverance and devotion to science for its own sake. St. Mungo's College was opened with an address from Professor McVail, who first of all expounded and criticised the new five years' curriculum, devoting the remainder of his lecture to consideration of the questions: "Do we know disease in all its variety better than our predecessors, and can we deal with it more successfully than they could?" to which he replied most emphatically in the affirmative.

Western Infirmary.

At a special meeting of the managers of the Western Infirmary yesterday Dr. Macewen was unanimously appointed one of the visiting surgeons in room of the late Sir George Macleod.

Professor Macewen's Opening Address.

This was given on Wednesday, in the Bute Hall of the

University. Professor Macewen first warmly thanked those who had supported him and so enthusiastically congratulated him in connexion with his appointment to the chair of Surgery. He then referrred in touching terms to his long connexion with the Royal Infirmary, speaking most gratefully of the services rendered to him by his nurses, his house surgeons, his colleagues and the directors of the infirmary. In the latter part of his lecture he recorded his early impressions of his teachers in the University, and referred to some of the distinguished men who had graced the various chairs in times past. His reference to the Hunters contained at least one good story. He said:—"However the Londoners may have been wanting in appreciation of John Hunter's genius while he lived among them, they have amply compensated for it by the care they have since bestowed upon his magnificent museum, to which they are constantly adding, and by the establishment of 'Hunterian Orations' the memory of his achievements is annually revivified. Contrast this with what is done in Glasgow to perpetuate the memory of these two great men. The public have almost forgotten their name, and this is even the case at their birthplace, Longcalderwood, to which, in company with Dr. Mather, I made a pilgrimage in search of Hunter's house. When the question was put to one old lady as to the whereabouts of the house which used to be inhabited by the Hunters, she naïvely answered in the Scotch fashion: 'What hae *they* been daen that ye're speerin' for *them?*'"

Oct. 20th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The New Lord-Lieutenant

THE Royal College of Physicians has presented an address of welcome to the Lord-Lieutenant on his arrival in Ireland. They assured his Excellency that they were now ready, as in the past, to afford to Her Majesty's Government their hearty assistance in all matters relating to medicine and the health and welfare of the people.

Vice-Regal Appointments.

The following is a complete list of those attached to the Lord-Lieutenant's household:—Physician in Ordinary, Christopher Nixon, M.D.; Surgeons in Ordinary, Richard F. Tobin, F.R.C.S., and Arthur Chance, F.R.C.S.; Surgeon Oculist, A. H. Jacob; Surgeon to the Household, T. Nedley, M.D.; Surgeon Dentist in Ordinary, Daniel Corbett, M.D.

Health of Dublin for September.

The death-rate was 2·14 lower than the mean rate for the previous ten years. As compared with the preceding month there was a very great decrease in the mortality caused by measles, and the epidemic may now be considered as at an end. Owing to the prevalence of cholera in certain parts of the Continent precautions were taken to prevent the disease from invading Dublin. Great attention was paid to the cleansing of the streets and the flushing of sewers. About £130 worth of disinfectants were used in the flushing of courts, alleys, lanes &c.

Royal University of Ireland.

The graduates' third annual conversazione will be held in the University buildings by permission of the Senate on the evening of Conferring Day, the 28th inst. The programme will include a concert, scientific exhibitions and demonstrations, and a military band will attend.

The Admission of Lady Students to the South Infirmary, Cork.

The trustees have adopted a resolution permitting lady students to attend clinical instruction at this hospital, and the minutes of said meeting were signed on the 14th inst. Some of the trustees, however, consider that Rule 26 has been broken, and after an animated discussion for and against the admission of lady students, it was determined to hold another meeting of the board to consider the following notice of motion: "That at the next board meeting the resolution of the 15th ult. relative to the admission of a lady applicant and other females as students to the clinical teaching of this hospital be rescinded on the grounds that such combined instruction of the sexes is prejudicial to the good working of the institution and has been found to work unsatisfactorily in other hospitals." I believe I am correct in saying that there is no by-law of the infirmary which would prohibit the admission of lady students for clinical instruction, and that their application for admission is merely an act of courtesy on their part, which some of the trustees appear to be unable to appreciate.

Proposed Cottage Hospital for Bray, Co. Dublin.

The medical officer of health and the consulting sanitary officer have recommended to the Bray Town Commissioners the erection of a cottage hospital for the use of the township, as in the event of an outbreak of cholera there is at present no proper place available but the Loughlinstown Workhouse Hospital, which is situated at too great a distance for patients suffering from cholera to be removed there. If not required now for the cholera it would be at all times available either for accidents or for epidemic diseases. The report has been referred to the Public Health Committee of the township.

American and Irish Surgery.

Mr. N. Grattan, F.R.C.S. Edin., of Cork, who has just returned from the United States, has been elected a corresponding member of the Orthopædic Section of the New York Academy of Medicine. He is the first Irish surgeon who has received this honour. He gave a demonstration of his method of treating deformities before a large meeting of the Orthopædic Association at the Hospital for Cripples, Twenty-fourth-street, New York. Afterwards he gave a second demonstration to members of the profession at the Post-Graduate Medical School and Hospital. On Wednesday, Sept. 24th, Mr. Grattan gave the opening lecture and demonstrated his method of operating at the clinic of Dr. Sayre, Bellevue Hospital and Medical College. Last year the honour of giving the opening lecture was accorded to Sir William Mac Cormac, who is also a distinguished Irish surgeon.

Royal College of Physicians of Ireland.

The annual meeting of the Fellows was held on St. Luke's Day for the purpose of electing a President and other office-bearers for the ensuing year. Dr. Finny's second year of office as President having terminated, the Fellows elected Dr. W. G. Smith as his successor. Dr. Smith is physician to Sir Patrick Dun's Hospital, and Professor of Materia Medica in the Medical School of the University of Dublin. Dr. Lombe Atthill was again re-elected representative of the College on the General Medical Council, and Dr. J. Moore, late registrar, has been succeeded by Dr. G. P. Nugent. At the same meeting Mr. Michael F. Cox, senior physician to St. Vincent's Hospital, was elected to the Fellowship of the College. Dr. Samuel Gordon has presented the College with a half-length portrait of its founder, Dr. John Stearne.

Hospital Dinner.

The medical staff of St. Vincent's Hospital and some friends dined together at the Shelbourne Hotel on Tuesday evening, the first of a series of annual reunions.

Dispensary Medical Officers' Grievances.

The Chief Secretary has refused to receive a deputation on the subject of the grievances of Irish dispensary medical officers on the ground that there would be no prospect of considering the necessary legislation in the approaching session of Parliament.

Oct. 18th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

High Altitudes and Health.

A FEASIBLE explanation of one of the factors going to make up the sum of causes which brings about that often-marked amelioration in the health of phthisical persons who have recourse to the high altitude treatment would appear to be emphasised by the communication made by M. Egger at the recent meeting of the Swiss Society of Natural Sciences held at Bâle. This observer, taking the Alpine station of Arosa as his example, came to the same conclusion as Viault, who found that after a certain residence on these elevated plateaux the red corpuscles of the blood increased to a very notable extent. After two or three weeks' sojourn at an altitude of 1890 metres M. Egger found in a number of individuals an augmentation of the red discs to the extent of 1,500,000 per cubic millimetre. Nor was this increase in the capillaries only apparent; it was real

and found to be the same in the larger arterioles. Neither was it due, in M. Egger's opinion, to any desiccation of the tissues by the dry atmospheric influences of the mountain. These observers further note that the red discs again diminished in quantity after a certain stay in the plains. M. Egger adds that he believes one of the causes of mountain malaise to be due to a relative anæmia of the organism, which latter must adapt itself to surrounding conditions. The benefit thus derived by tuberculous subjects from a stay on a mountain top on the one hand, and the anæmia which is an almost constant premonitary as well as a later sign of tubercular lung mischief on the other, appear to lend support to the theory that there is an antagonistic action between the tubercle bacillus and certain other embryonic elements, and would seem to say much in favour of the views of Pasteur's disciples.

Intra-uterine Injection of Glycerine.

The injection of glycerine into the rectum has for some years been current in practice, and it is recognised in certain conditions to be a very convenient and efficient method of administering an enema. It strikes me as strange that a substance so efficient in emptying the rectum should until now have been put to comparatively few trials in emptying the uterus of its contents, for *a priori* it seems a likely agent for this purpose. M. Pelzer records some observations made in the latter direction, and speaks favourably of intra-uterine injections of glycerine for the inducing of necessary premature labour as well as in cases of insufficient uterine contraction. His method of procedure is as follows: He takes a syringe of the capacity of 150 grammes, or a little over four ounces, and, having filled it with pure glycerine, he attaches it, through the medium of a gutta-percha tube, to a perforated sound. Having cleared the apparatus of air in the usual way, he introduces it into the uterine cavity between the posterior wall and the membranes to the fundus of the organ. The glycerine is then injected and the pelvis elevated to prevent its too rapid escape. In a very brief space of time energetic contractions are set up. The effect of the glycerine is due in part to its mechanical action in separating the membranes from the uterine wall and in part to its chemical affinity for water, by virtue of which some of the amniotic liquid is abstracted, which in turn contributes to a further detaching of the membranes. On the whole M. Pelzer was pleased with his results and suggests glycerine as worthy a further trial in obstetric practice.

General Education of Midwives.

Whilst in England the whole position and status of the midwife, to say nothing of her education, general (if any) or professional, is one of doubt and uncertainty, if not worse, and while schemes for her improvement off or on the face of the earth appear to be matters of sore contention, here in France it must be admitted the practice of midwifery by women as well as the position and professional scope of the midwife are on very clearly defined lines, the study of which by those interested for or against the Bill now or lately before the Westminster Parliament might well repay. Doctors' fees for obstetric work in France and its large towns are well known to be high, by comparison with those in England; but the explanation is not always added, which is that almost all the cheap midwifery here is done by the "sage-femme" or midwife, and those who are unable to afford even the services of the professional midwife have recourse to the lying-in wards attached to mostly all the general hospitals or to the maternity hospitals. The "sage-femme" of Paris thus occupies an intermediate but distinct professional position, and no complaint is ever made that she interferes with or encroaches on the doctor's sphere, to whom, however, she must always have recourse in cases of difficulty, for she is not allowed by the law to perform obstetric operations or use any instruments. It was only the other day that special permission was accorded to her to use perchloride of mercury in vaginal douches. Her professional education is well looked after, for she must do the curriculum and pass the examination prescribed before her diploma issues. As to her general education, the following letter from M. Bourgeois, the Minister of Education, to the rectors of the various faculties shows that in that respect also she will compare somewhat to the disadvantage of her English *confrère*:—"Monsieur le Recteur,—My attention has been called to the increasing inconvenience caused by the deficiency in primary education too often betrayed by the candidates for the diploma of midwife. ..... For the future the possession of a certificate of primary study will in no sense exempt candidates for the midwifery diploma from the preliminary examination instituted by the decree of Aug. 1st, 1879. Be good enough to inform the deans and directors in your academical centre of this division, and invite them to place it within the knowledge of those interested."

Statues of Eminent Doctors.

I cannot recall to mind where in England there is to be found a statue to any of the good and great men in our profession who have an undoubted claim on humanity, unless it be the single exception of Harvey's in Folkestone. Not so throughout France. Paris alone has statues to Broca and others, and will shortly have one to Ricord, for which the President of the Republic has approved the sanction of the Prefect of the Seine authorising the erection of the statue in one of the public places of Paris. To-morrow also will be inaugurated at Morlaas the bust of Depaul, formerly the well-known professor of obstetrics at the University of Paris.

Oct. 19th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Cholera in Germany.

THE number of cholera cases officially reported from Hamburg last week was 101, the number of deaths twenty-seven. The Imperial Office of Health has been for some time past investigating the behaviour of cholera bacilli on and in various kinds of fruit, beverages, tobacco, sweetmeats and fish, and will publish the results of the experiments soon.

Professor Virchow's Inaugural Address as Rector of Berlin University.

Professor Virchow was formally installed as Rector of Berlin University last Saturday, and delivered an address to the students and professors, in the course of which, while gratefully acknowledging the valuable results of classical education in the past, he declared that "the golden triad of mathematics, philosophy and natural science" must be the main staple of high education in future. I quote the following sentences as of special interest for medical men. "No schoolboy will be the worse for being able to name and distinguish a certain number of plants, animals or stones. But the essential discipline should consist in the training of the senses, especially those of sight and touch. At present we have to complain that a large number of our hearers have no exact knowledge of colours; that they make false statements about the form of the things they see; that they show no understanding for the consistency of bodies and for the nature of their surfaces. Nothing should be easier than to develop accuracy of judgment regarding colour and form, if not only observing but also simple drawing and painting were taught. Everyone can make use of such knowledge; for the medical man it is of the greatest value, as the diagnosis of the most important conditions not unfrequently depends on it. The experimental natural sciences, especially physics and chemistry, are also indispensable for school instruction, for they show better than anything else the genetic and causal connexion of processes, and prepare for the systematic study of the more abstruse problems of biology."

Surgeon-General Dr. Mehlhausen.

In accepting Surgeon-General Mehlhausen's resignation as Director of the Charité, the Emperor appointed him surgeon-general "at disposal," and bestowed on him the Star of the Crown Order of the second class. The decoration and the document accepting his resignation were conveyed to him by the Minister of Educational, Ecclesiastical and Medical Affairs. The Society of the Physicians and Surgeons of the Charité have elected him honorary president and presented him with an album containing photographs of all the former and present members.

The New Director of the Charité.

Surgeon-General Dr. Hermann Schafer, Surgeon-General Mehlhausen's successor as medical director of the Charité, received his medical education in the Berlin establishments for the training of medical men for the army. He graduated in 1864, passed the State examination in 1866, and served for some time after the French war in the Charité. He afterwards served in the garrison in Hanover. His last post was that of medical officer to the 17th Hussars at Brunswick,

where he was also Physician-in-Ordinary to the Prince Regent, Prince Albert of Prussia. Except a booklet on the care of children—which appeared in 1878—and lectures on various hygienic questions—which he published in 1884—all his medical writings have appeared in the *Militärarztliche Zeitschrift* (*Military Medical Journal*). Their subjects are the transference of small-pox by skin-grafting in the preliminary stage of the disease, Weil's disease, purpura &c.

Medical Incomes in Berlin.

From the income-tax returns recently issued the profession of medicine in Berlin would not seem to be one to be followed by men ambitious of financial success. There are 1747 medical men in this city—neary half the profession—who make less than £150 a year. Only 250 make £400, and 170 more than £500. If this is the state of matters in the capital, what must it be in the country?

Berlin, Oct. 18th

Obituary.

DR. PIETRO PELLIZZARI.

ON Sunday, the 2nd inst., the Florentine school lost this able and accomplished teacher and consultant after an illness of several months' duration. Dr. Pellizzari held the chair of Dermosyphilopathy in the Istituto de' Studi Superiori, and in connexion with it had charge of the wards set apart for syphilitic and cutaneous diseases in the hospital of the S. Maria Nuova. In both capacities, as an expounder of system and as a clinical instructor, he had rare gifts and accomplishments, the combination of which rendered him the most popular and the most effective teacher and examiner in his special *métier* throughout Italy. Students from all parts of the peninsula flocked to his prælections and clinique, while for years he had established among his compatriots the highest position as a practitioner and consultant. "The Italian Ricord" was a title he was well and widely known by. His youth, like that of so many other Italians who have risen to professional distinction, was spent in an atmosphere of revolution, and in sympathy with the cause of his country's independence and unity he served in the ranks of the volunteers in more than one patriotic rising. The consummation of a "united Italy with Rome for capital" once achieved, he threw himself with ardour into medical study—ardour all the more intense for the interruption so nobly incurred—and speedily rose to the front rank in the speciality which became his own. He was a powerful advocate of the disposal of the dead by cremation, and had indeed for many years been President of the "Società di Cremazione" in Florence. In the terms of his will, and in keeping with his lifelong precept, his body was on the 4th inst. reduced to ashes in the local "Tempio Crematorio." His funeral, which took place on the 3rd inst., was one of the most largely attended and the most impressive lately witnessed in Florence. The leading lights of the Florentine and other Tuscan schools, whether in the medical, legal, or literary faculties, were numerously represented, and professional colleagues from all parts of Italy, and even foreign delegates like Professor Moriz Schiff of Geneva, assisted in person. Notable in the funeral *cortège* was the large attendance of students of present and former years, and still more so the few survivors of the revolution of 1848, who, under the banner of the "Reduci delle Battaglie Patrie," accompanied their old companion-in-arms to his last resting-place. A selection from his numerous papers and prælections on obscure points of syphilitic and cutaneous diseases will, it is understood, be collected shortly and, preceded by a biographical memoir, be published. Dr. Pellizzari was in his seventieth year.

DR. JULIUS VON BEREGSZASZI.

To students who have worked at laryngology or rhinology in Vienna the name of Dr. Julius von Beregszaszi is familiar. Those who were so fortunate as to be admitted to his classes regarded him with respect and affection. All who knew him will be grieved and surprised to hear that he died recently of aneurysm of the aorta. He was only forty-five years of age, and from his appearance seemed destined to live the full span allotted to mortals. His death took place during a holiday visit to Bad Zardpoort in Holland. Shortly after his bath he sank down before the door of his hotel and expired. Dr. Beregszaszi will be greatly missed by a large circle of friends. By his genial manner he had endeared himself to his colleagues as well as to students and patients. More than one thousand letters of condolence were received by his widow.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in Anatomy and Physiology at a meeting of the Examiners on the 10th inst.:—

Julio D. Amenábar, of Owens College, Manchester; Edward L. Roberts and Horace R. Wilson, of University College, Liverpool; James Boyd, of Glasgow University and St. Mary's College; William J. Gray, of Edinburgh University; Edward T. Coady, of the Catholic University, Dublin; John A. Hall and Leonard K. Thomas, of Mason's College, Birmingham; Stephen Y. Howell, of the College of Physicians and Surgeons, New York.

Anatomy only—**Harold Jackson, of Yorkshire College, Leeds, and St. Mary's Hospital; Sydney Crompton, William S. Freer, and William Sutcliffe, of Mason's College, Birmingham; John B. Chadwick, Harry P. Dalley, and William Chapman, of Owens College, Manchester; George R. Sparrow of University College, Liverpool; John A. MacPhail, of McGill College, Montreal; Edward J. C. Kennedy, of McGill College, Montreal, and Mr. Cooke's School of Anatomy and Physiology.**

Physiology only.—**Cyril H. Flory and Herbert A. L. Banam, of Sheffield Medical School; Percy A. Chillcott, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Duncan N. Maclennan, of Queen's College, Kingston, Canada, and London Hospital; Arnold J. Thompson, of Mason's College, Birmingham; Charles A. Phillips, Percy Kitchin and William S. Dibbe, of Yorkshire College, Leeds; John H. Wigham, of Yorkshire College, Leeds, and St. Mary's Hospital; Albert Hodge, of Owens College, Manchester.**

Eleven candidates were referred in both subjects, six in Anatomy only, and six in Physiology only.

Passed on the 11th inst.:—

Anatomy and Physiology.—**Charles E. Layton and George C. Belcher, of Mason's College, Birmingham; Charles G. Higginson, of Owens College, Manchester; Eldon Pratt, of St. Bartholomew's Hospital; Robert A. Nesham and James R. Kingdon, of Cambridge University and St. Bartholomew's Hospital; Chintaman R. Bakhla, of Grant Medical College, Bombay; Robert P. Smallwood, of Cambridge University; George W. Penny, of St. Thomas's Hospital.**

Anatomy only.—**Arthur Cant, of Mason's College, Birmingham; Mohamed A. Ghani, of Lahore Medical College, Punjab; Frank R. Proctor-Sims and Richard L. Roberts, of Guy's Hospital; Guy P. U. Prior and John R. Benson, of King's College; Finch White, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; Frederick E. H. Keogh, of St. Mary's Hospital; John S. Hosford, Gerald H. Goddard, and John Blackwood, of University College; Alfred B. Wright, of London Hospital; Alfred W. Wilson, of Melbourne University and London Hospital; Alexander S. Grant, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Walter P. X. Hopkins, of St. Bartholomew's Hospital.**

Physiology only.—**Edward H. Phillips and George Y. Myrtle, of Yorkshire College, Leeds; Arthur T. Jones and Henry W. Lloyd, of University College, Liverpool; William E. Bracey, of Mason's College, Birmingham; Ernest William Ormerod, of Bristol Medical School and Mr. Cooke's School of Anatomy and Physiology; Joseph Broadbent and John T. Barritt, of Owens College, Manchester; William M. Coghlan, of St. Bartholomew's Hospital; Walter H. Morgan, of Charing-cross Hospital and Mr. Cooke's School of Anatomy and Physiology; Thomas W. Turner, of London Hospital and Mr. Cooke's School of Anatomy and Physiology.**

Eight candidates were referred in both subjects, four in Anatomy only, and eleven in Physiology only.

Passed on the 12th inst.:—

Anatomy and Physiology.—**Harry J. M. Smith and John W. Bird, of Guy's Hospital; Herbert S. Oliver, of Charing-cross Hospital; Herbert E. Gibson, of University College; Robert Hughes, of St. Thomas's Hospital; Charles H. Hopkins, of St. Bartholomew's Hospital; George C. Hancock, of Westminster Hospital and Mr. Cooke's School of Anatomy and Physiology.**

Anatomy only.—**William G. Mitchell, Berthon F. Pendred, Ellis R. Thomas and Archibald A. Price, of Guy's Hospital; Edgar Thomas Inkson, of University College; Ernest T. Clayton, of Charing-cross Hospital; Richard Armitage, of St. Bartholomew's Hospital.**

Physiology only.—**Edgar T. Lanyon and Alfred E. Sears of London Hospital and Mr. Cooke's School of Anatomy and Physiology; Eugene Moore, of Guy's Hospital; Alfred W. Hayles, of King's College; Edward G. Moon and Basil Pares, of St. Mary's Hospital.**

Fifteen candidates were referred in both subjects, three in Anatomy only and nine in Physiology only.

Passed on the 13th inst.:—

Physiology only.—**John W. Ensor and Ernest H. Tipper, of Guy's Hospital; Lionel H. Y. Stephens, of Yorkshire College, Leeds, and Guy's Hospital; Cyrus W. Smith, Joseph L. F. de Gannes, Algernon C. Bean and Arthur B. R. Sworn, of University College; Samuel B. Blomfield, of Westminster Hospital and Mr. Cooke's School of Anatomy and Physiology; James H. de Villiers, George W. Brown, Frank E. Saunders and Percy L. Blaber, of St. Thomas's Hospital; George Candler, of Cambridge University and St. Thomas's Hospital; Thomas Herbert, Francis H. Bailey-King and Alan P. Birch, of Middlesex Hospital; Alfred K. M. Curtis and Lewis Savin, of Middlesex Hospital and Mr. Cooke's School of**

Anatomy and Physiology; William T. Dempster, Thomas H. Parker and Alexander S. Mc Scrley, of King's College; William P. Brooks, of Charing-cross Hospital; Hubert H. Thomas, of Charing-cross Hospital and Mr. Cooke's School of Anatomy and Physiology; Thomas Hood and Arthur H. Beadles, of St. Bartholomew's Hospital.

Eleven candidates were referred in Physiology.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following have passed the Second Professional Examination:—

U. J. Burke, T. Cairns, R. Coffey, E. P. Coogan, B. Coyle, C. J. Fallon, L. A. Hare, R. Hassard, E. J. Hogan, T. J. Jordan, H. T. Kennedy, W. P. Marriott, J. G. Morgan, I. J. M'Donogh, C. J. O'Gorman, H. S. Roberts, W. Ryan, J. Sheridan, S. Stewart, W. Stratton, J. H. Walsh, J. S. Watson and M. A. Wilmé.

ROYAL UNIVERSITY OF IRELAND.—The following have passed the Medical Degrees Examination:—

Upper Pass Division—James Lynass, William A. Rountree. (These candidates may present themselves for the further examination for Honours.)

Pass Division—James F. Barrett, Francis Brannan, Francis H. Clements, Peter Dee, Hugh J. Dickey, Victor G. Fielden, Matthew Ledwich, Herbert C. Mooney, Adam Moss, Patrick J. O'Brien, Daniel O'Callaghan, John O'Donnell, Daniel O'Driscoll, Thomas Pedlow, Joseph M. Richey, Lawrance Rowan, David J. Ryan, Howard Sands, James A. Scott, John Scott, William Scott, Edwin S. Topping, Edward T. Vint and John J. Yorke.

Diploma in Mental Diseases—John Mills and William C. Sullivan.

The following have passed the first examination in medicine of the University:—

Hugh Bell, H. F. Browne, Wm. Calwell, S. D. Clementa, W. G. Cousins, S. L. Cummins, J. Danaher, J. Dorgan, F. E. Dowling, D. Fleck, T. H. Gloster, E. S. Gorman, T. F. Heas, J. T. Hunter, R. J. Johnstone, T. Kennedy, E. A. Kirkwood, J. Kirwan, E. J. Liddle, Geo. Liddle, J. M. Lynch, J. H. McComb, P. W. McHugh, F. C. McKee, T. Magner, Wm. McWhirter, A. Montgomery, D. H. O'Brien, T. P. O'Carroll, R. Officer, P. O'Flaherty, E. F. O'Sullivan, J. Park J. Shinkwin, J. Slattery, R. B. Threlfall, W. White, and William J. Wilson.

The undernamed will be allowed to present themselves for honours in the following subjects:—

Botany—W. J. Cousins, R. J. Johnstone, E. J. Liddle, W. H. Mewhirter, E. F. O'Sullivan, James Park, Wm. White, Wm. J. Wilson

Zoology.—J. Dorgan, E. S. Gorman, R. J. Johnstone, Thos. Kennedy, E. J. Liddle, J. M. Lynch, T. O'Carroll, J. B. Slattery, William White.

Experimental Physics.—S. D. Clementa, T. H. Gloster, E. S. Gorman, Robert J. Johnstone, Thos. Kennedy, James St. L. Kirwan, Alexander Montgomery, Daniel H. O'Brien, Joseph Shinkwin, William White.

Chemistry—E. S. Gorman, Robert J. Johnstone, Thomas Kennedy, Daniel H. O'Brien, Patrick E. O'Flaherty, and William White.

MEDICAL MAGISTRATE.—Dr. T. Starkey Smith, of Warrington, has been placed on the Commission of the Peace for that borough.

METROPOLITAN ASYLUMS BOARD.—The number of patients remaining in the several fever hospitals of the Metropolitan Asylums Board at midnight on Oct. 18th was as follows:—Eastern Hospital, 404 scarlet fever, 53 diphtheria and 45 enteric fever; North-Eastern Hospital, 218 scarlet fever; North-Western Hospital, 401 scarlet fever, 101 diphtheria and 17 enteric fever; Western Hospital, 304 scarlet fever, 39 diphtheria, 1 typhus fever and 18 enteric fever; South-Western Hospital, 304 scarlet fever, 55 diphtheria and 25 enteric fever; South-Eastern Hospital, 395 scarlet fever, 26 diphtheria and 13 enteric fever; Northern Hospital, 904 scarlet fever and 17 diphtheria; Gore Farm Hospital, 779 scarlet fever. On the hospital ship *Atlas* there were 5 cases of small-pox.

CHARITABLE BEQUESTS.—It is not often that great wealth accumulated by commercial enterprise comes to be so beneficently bestowed as in the case of the distribution of the effects of the late Mr. Berridge. The trustees, too, are to be congratulated on the judgment with which they have, according to our information, apportioned the legacy of £150,000 recently bequeathed by the testator for public purposes chiefly connected with public health. The Sanitary Institute receives £10,000; the British Institute of Preventive Medicine £40,000; King's College, £10,000 towards the expenses of founding its Public Health Department; University College £10,000, for the chair of Hygiene. The sum of £2000 is to be handed over to the Plumbers' Company in support of their scheme for the registration and training of plumbers; whilst a large sum has been set apart for the teaching of cookery in schools. The late Mrs. Maria Macdonald of Newcastle has bequeathed the following charitable legacies:—Newcastle Infirmary, £1000; Blind Asylum, £300; Sick Children's Hospital, £300; Northern Counties Orphanage, £300; Boys' Refuge, £300; Aged Female Society, £300.

THE NORTH BIERLEY JOINT HOSPITAL.—This new hospital for infectious diseases, erected by the North Bierley Joint Hospital Board, was formally opened on Saturday by Mr. Arthur Anderton of Cleckheaton. The total estimated cost of the site, buildings and furnishing is £8500. The buildings comprise an administrative block, a pavilion with two wards of six beds each, an isolation block, with four wards and ten beds, a mortuary and other necessary accommodation.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—There will be a meeting of this Association at Mullingar Asylum on Oct. 27th, when the following papers will be read:—Dr. Finnegan: Dress of Asylum Inmates. Dr. West: Farms for Asylums. Drs. J. N. Eustace and Parsons: Pachymeningitis Hæmorrhagica Interna. Dr. Nash: (*a*) Alcoholic Neuritis and Insanity; (*b*) Puerperal Insanity with High Fever. Dr. Ruttledge: Muscular Atrophy limited to certain groups of muscles. Dr. Nolan: Syphilitic General Paralysis.

UNIVERSITY OF ABERDEEN: EXAMINERS FOR GRADUATION IN MEDICINE.—The University Court, at a meeting on Oct. 11th, appointed the following to be examiners for 1892-3:—Anatomy: Bertram C. A. Windle, M.D. &c., Mason College, Birmingham. Botany and Materia Medica: Jas. Galloway, M.D. Lond. Chemistry and Medical Jurisprudence: Alfred Hill, M.D. Aberd., Birmingham. Natural History and Institutes of Medicine: George N. Stewart, M.D. Camb. Practice of Medicine and Pathology: Sidney Coupland, M.D. Lond. Surgery and Midwifery: George M. Edmond, M.D. Aberd.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.—The following officers have been elected for the ensuing year:—President: W. G. Smith. Vice-President: J. Moore. Censors: J. Moore, C. Norman, Joseph O'Carroll, W. Smyly. Additional Examiners to take the place of an absent Censor: Medicine, H. C. Tweedy; Medical Jurisprudence and Hygiene, Joseph Redmond; Midwifery, A. Horne. Examiners for the Licence to practise Midwifery: A. J. Horne, A. V. Macan. R.C.P.I. Examiners under the Conjoint Scheme with the R.C.S.I. (not including the above Censors, who examine at the Fourth Professional Examination)—Chemistry and Physics: H. T. Bewley, Edwin Lapper. Materia Medica and Pharmacy: Ninian Falkiner, F. J. Quinlan. Physiology: John Purser. Medicine (second and third professional examinations): W. Beatty, E. Cosgrave. Hygiene and Forensic Medicine; John Molony. Membership Examiners—Clinical Medicine: J. Moore, Joseph O'Carroll. Pathology: H. T. Bewley, C. Norman. Practice of Medicine and Principles of Public Health: Joseph Redmond, H. C. Tweedy. R.C.P.I. Examiners for the Conjoint Diploma in State Medicine—State Medicine and Hygiene: F. J. Quinlan. Meteorology: J. Moore. Chemistry: Edwin Lapper. Engineering: A. Murray. R.C.P.I. Examiners in Preliminary Education—Science: E. Cosgrave. Languages: H. T. Bewley. R.C.P.I. Representatives on the Committee of Management: J. M. Finny, T. Grimshaw, C. J. Nixon. Representative on the General Medical Council: L. Atthill. Registrar: G. Nugent. Librarian: S. Wilson.

FOOTBALL CASUALTIES.—On the 6th inst., while teams representing the Victoria Rangers of Aberdeen and the Cutter Club were playing a match at Cutter, a member of the latter club, aged twenty-three, came into collision with another player and received injuries from which he died the next day.—During a match (Brimington United against Brimington) on the 11th inst. a player had his "kneecap severely kicked."—The following four accidents occurred on Saturday: In a match at Holburn (Thistle against Grammar School, F. P.), the Thistle Club captain sustained a serious injury to the nose; during a match (Branston Unity against Perriams Teams) at Sattley a player, aged twenty-one, collided with another player and fractured his left leg; in the course of a match at Kelbourne-park, Kelvinside, Glasgow (between the Perthshire Athletic Club and the Royal Scots Fusiliers), a member, aged twenty-five, of the Perthshire team had his left leg fractured above the knee; also a boy aged eleven, while playing in a field off Dumbrick-road, fractured his leg.—In a match between some youths in the Vicarage-road, King's Heath, a player, in attempting what is called a "screw kick," gave himself a violent twist, death ensuing shortly afterwards. A post-mortem examination revealed that the intestines were twisted and caused the fatality.—A boy aged seven, while playing in a game on Tuesday in Gledhow-street, Leeds, received an injury to his leg and was admitted to the Leeds Infirmary.

MEDICAL CORONER.—Mr. Albert Green, M.B. Lond., M.R.C.S., L.R.C.P., has been appointed deputy coroner for the Hundred of Scarsdale, North Derbyshire.

SCARLET FEVER AT SOUTHAMPTON.—An outbreak of scarlet fever has taken place at Southampton, resulting in the closing of a school. So far it has been strictly localised, and all the cases have been conveyed to hospital. One person has been fined 5*s.* for illegally exposing his son in the street whilst suffering from the disease.

CHESTER INFIRMARY.—The new Humberstone wing of this infirmary was opened by the Duke of Westminster on Wednesday last. The addition has cost upwards of £2500, and was designed as a memorial of the late Colonel Humberstone, who for twenty-five years acted as chairman of the board of management of the institute.

ST. VINCENT'S HOSPITAL, DUBLIN.—The following prizes have been awarded for the past session:—Senior Class—Bellingham Medal in Clinical Medicine: James P. Marnell. O'Ferrall Medal in Clinical Surgery: James F. Barrett. Third Year's Class—Prize: John R. O'Brien. Junior Class—Junior Clinical Prizes: John H. Davis and Patrick F. Morrissey (equal).

ANOTHER UNDERGROUND LAVATORY.—In opening to the public the underground lavatory in Walterton-road on Thursday, the 13th inst., Mr. John Williams, chairman of the Works Committee, stated that the vestry had now been convinced that establishments of this kind, if carefully managed, were self-supporting, and expressed a hope, endorsed by Mr. Whur, Deputy-Surgeon-General Jessop and Mr. Rayner, that the time was approaching when lavatory accommodation would be provided in all suitable thoroughfares in the parish.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—Sir James Paget, President, took the chair at the quarterly Court of Directors held on Wednesday, Oct. 12th. Fifty-eight widows, 12 orphans and 4 orphans on the Copeland Fund made applications for grants and it was resolved that a sum of £1256 should be distributed among them at the next Court. The directors had great pleasure in recommending that a Christmas present should be given this year to the widows and orphans on the fund—viz., £5 to each widow, £2 to each orphan and £5 each to the 4 orphans on the Copeland Fund—in all, £334. Four new members were elected and the deaths of 4 reported. The death of a widow was announced and 3 orphans had ceased to be eligible for further grants. The expenses of the quarter were £63 14*s.* 6*d.* A legacy of £20 had been received from the executors of Mr. J. G. Davies, a life member.

ÆSCULAPIUS LODGE, No. 2410.—The installation meeting of this lodge was held on Wednesday, the 12th inst., at the Café Royal, Regent-street, W. Brother Brindley James, P.M., W.M., presided, and there were also present, besides the officers of the lodge, Brothers the Rev. R. J. Simpson, M.A., P.M., P.G. Chap.; Ralph Gooding, M.D., P.M., P.G.D.; M. Coates, M.D., P.M.; W. Ernest Dring, P.M.; Lewis Lewis, H. G. Blackmore, Edward. S. Bell, C. Luxmore Drew, M.B., and N. E. Yorke Davies. After the lodge had been opened &c., Brother Brindley James, P.M., installed Brother Deputy-Inspector-General Belgrave Ninnis, M.D., P.M., G. St. Br. as W.M. for the ensuing year. The newly installed Master then appointed the following brethren officers for the year:—Brothers Brindley James, I.P.M., F. Ernest Pocock, M.D., P.M., S.W.; Jacob Pickett, M.D., J.W.; G. Danford Thomas, M.D., Treasurer; Thomas Dutton, M.D., P.M., Secretary; G. Crawford Thomson, M.B., S.D.; Anthony Nutt, J.D.; Lennox Browne, F.R.C.S. Ed., P.M., D.C.; Frank Oldfield, P.M., S.G.; E. H. Ezard, M.D., Steward; Henry W. Kiallmark, P.M., Steward; Samuel Ellis, Tyler; Mr. William Arbuthnot Lane, M.S. Lond., F.R.C.S. Eng., and Mr. Frank Fowler, L.R.C.P. Lond., M.R.C.S. Eng., were then admitted into Freemasonry. Brother J. H. Garland Wrighton, L.D.S. Eng., P.M., was duly elected a joining member. A handsome Past-Master's jewel was presented to Brother Brindley James for the admirable manner in which he had carried on the work of the lodge during the past year. The auditors' report was read by the treasurer and unanimously adopted and other routine business transacted, after which the lodge was closed. The usual loyal and masonic toasts were given at the banquet with commendable brevity, and a very pleasant reunion of the brethren took place.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALLAN, FRANCIS J., M.D., D.P.H., has been appointed Lecturer on Sanitary Science to King's College, London.

DAUNT, E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the West Brigg Sanitary District of the Lincoln Union.

FOOT, E. G., M.R.C.S., has been appointed Medical Officer for the First Sanitary District of the Takeham Union.

GOODMAN, F. G., M.D., M.Ch. Dub., has been appointed Medical Officer for the East Brigg Sanitary District, Public Vaccinator for the Barnetby Sanitary District, and Medical Officer for the Workhouse of the Lincoln Union.

MASON, GEORGE A., M.A., M.B., B.C. Cantab., has been appointed House Physician to the Great Northern Central Hospital.

MAYNARD, D. F., M.B., C.M. Edin., has been appointed House Surgeon to the Sussex County Hospital, vice Calvert, resigned.

MERCER, W. B., B.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P., has been appointed House Physician to the Royal Hospital for Diseases of the Chest, City-road, E.C.

PEARSE, FRANCIS J., M.R.C.S., has been appointed Divisional Surgeon to the A Division of the Metropolitan Police; also Medical Officer to the United Westminster Almshouses.

RADFORD, WILLIAM J., L.R.C.P. Lond., M.R.C.S., has been appointed Senior House Surgeon to the Poplar Hospital for Accidents, vice Hawtrey Collins, resigned.

ROE, M. W., M.R.C.S., has been appointed Medical Officer for the Constantine Sanitary District of the Falmouth Union.

ROGERS, J. F., L.R.C.P. Edin., M.R.C.S., has been appointed Public Vaccinator to St. Luke's Holborn Union, vice Yarrow.

SNADDEN, JAMES, M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Fourth Sanitary District of the Wortley Union.

SMITH, JOHN A., M.R.C.S., has been appointed Medical Officer for the Shitlington Sanitary District of the Wakefield Union.

SWALLOW, F. MCDONALD, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Rural Sanitary District of the Penistone Union.

WEBSTER, A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the First Sanitary District of the Middlesbrough Union.

WILLOCKS, A. D., M.R.C.S., has been appointed Medical Officer of the Taunton Workhouse, vice Iles, resigned.

WOOD, J. C., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Sunderland Urban Sanitary District of the Sunderland Union, vice A. E. Harris, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights and attendance.

BRISTOL EYE HOSPITAL.—House Surgeon. Salary £120, without board or residence.

CHURCH OF SCOTLAND JEWISH MISSION.—Medical Missionary for the Mission and Hospital at Smyrna. Salary £300, with dwelling-house. (Applications to the Rev. Dr. Alison, 1, South Lauder-road, or Mr. J. A. Trail, W.S., 17, Duke-street, Edinburgh.)

DEVON COUNTY LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100, rising by an annual increase of £10 to £120, with board, lodgings and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. Board and lodging provided.

GENERAL HOSPITAL, Barbadoes, West Indies.—Junior House Surgeon for three years. Salary £200 per annum and quarters. (Applications to the Secretary, General Hospital, Barbadoes.)

GLAMORGAN COUNTY COUNCIL.—County Medical Officer. Salary £750 per annum, of which £150 is intended to cover all travelling and office and laboratory expenses.

HENLEY UNION.—Medical Officer for the Watlington District of the Union. Salary £105 per annum, and the extra remuneration provided by the Order of the Poor Law Commissioners, and 10*s.* per case for midwifery cases.

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

HUDDERSFIELD INFIRMARY.—Honorary Physician.

LONDON THROAT HOSPITAL, 204, Great Portland-street, London.—House Surgeon for six months. Honorarium at the rate of £50 per annum.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Surgeon.

NATIONAL DENTAL HOSPITAL, Great Portland-street, London.—Anæsthetist.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho-square.—Physician.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer for six months, and Assistant Resident Medical Officer for six months. Salary for the senior post £50.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Assistant Surgeon.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Junior House Surgeon. Salary £50 a year, with board &c.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks) and washing provided.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, Ventnor, Isle of Wight.—Assistant Resident Medical Officer. Salary £70 per annum, with board and lodging in the hospital. (Applications to the Board of Management, 34, Craven-street, Charing-cross, London.)

SHEFFIELD SCHOOL OF MEDICINE.—Tutor, to take charge of Dissecting Room and hold classes in Anatomy and Physiology. Salary commencing at £100.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY.—Medical Officer to the Provident Dispensary attached to the Hospital. Salary £60 per annum, with board, lodging and washing.

Births, Marriages and Deaths.

BIRTHS.

BAKER.—On Oct. 15th, at The Hawthorns, Church-end, Finchley, the wife of James Barrington Baker, M.D., of a son.

BRODIE.—On Oct. 17th, at Fakenham, Norfolk, the wife of F. Carden Brodie, M.B., of a daughter.

HARDING.—On Oct. 10th, at Douro-place, Dover, the wife of Surgeon-Major A. Harding, Army Medical Staff, of a son (premature).

HEWITSON.—On Oct. 16th, at Park Villa, Hetton-le-Hole, co. Durham, the wife of William Andrew Hewitson, M.R.C.S. Eng., L.R.C.P. Ed., of a son.

HUMPHRY.—On Oct. 17th, at Townsville, Queensland, the wife of Ernest Humphry, M.R.C.S Eng., of a daughter.

POCOCK.—On Oct. 12th, at Manor-view, High-road, Streatham, the wife of Alfred Pocock, M.R.C.S. Eng., L.R.C.P. Lond., of a son.

RANSOME.—On Oct. 13th, at The Downs, Altrincham, the wife of Herbert F. Ransome, L.R.C.P., M.R.C.S., of a daughter.

SEATON.—On Oct. 14th, at the Limes, Clapham-common, S.W., the wife of Edward Seaton, M.D., F.R.C.P., of a daughter.

SKIPPER.—On Oct. 17th, at Tollington-park, N., the wife of Edward Skipper, M.D., of a son.

MARRIAGES.

CRAN—BERTRAM.—On Oct. 12th, at Post Cliffe, Peterhead, Aberdeenshire, by the Rev. James Aird, M.A., Minister of the parish, assisted by the Rev. Gavin E. Argo, M.A., Kincardine, O'Neil Robert Cran, M.D., M.C., Ballater, to Elizabeth Bertram, only daughter of John Johnston.

FERGUSON—MACHIN.—On Oct. 18th, at Christ Church, Brondesbury, N.W., by the Rev. C. Dale William-, M.A., Rector, assisted by the Rev. W. G. Whinfield, B.A., of the Parish Church, Eastbourne, Robert Bruce Ferguson, M.A., M.B., B.C. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., of 26, Woodland-road, New Southgate, N., eldest son of the late William Ferguson, Esq., of Leeds, to Florence, youngest daughter of Frederick Machin, Esq., of Ilmeer, Willesden, N.W.

HAWORTH—KNIGHT.—On Oct. 12th, at St. John's Church, Cayton, near Scarborough, by the Rev. A. N. Cooper, Vicar of Filey, assisted by the Rev. F. G. Stapleton, Vicar of the Parish, J. T. Haworth, L.R.C.P., L.R.C.S. Edin., of Filey, to Beatrice Mary, youngest daughter of the late J. C. Knight, Chapel Allerton, near Leeds.

HUGHES—RANKIN.—At Stambridge Church, Essex, by the Rev. E. F. Russell, of St. Alban's, Holborn, assisted by the Rev. G. W. Keightley, M.A., Rector of the parish, Wilfrid Kent Hughes, M.B. Lond., M.R.C.S., youngest son of the late C. W. Hughes, of Melbourne, to Clementina Jane, second daughter of Alfred M. Rankin, Bromhills, Rochford, Essex. Australian papers please copy.

TILLEY—TILLEY.—On Aug. 22nd, at St. Paul's, Rockhampton, Queensland, by the Rev. C. Warrington, Wm. Jas. Tilley, L.R.C.P. Lond., M.R.C.S. Eng., eldest son of William Tilley, late of Krongart, S.A., to Harriette, widow of the late Thos. Tilley of Gillow, S.A., and third daughter of the late John Law, of Kidderminster, England.

TUCKETT—SOPER.—On Oct. 12th, at Wanstead Church, by the Rev. R. D. Swallow, Head Master of Chigwell School, assisted by the Rev. G. B. Doughty and the Rev. L. S. Staley, Walter Reginald Tuckett, M.R.C.S. &c., of Woodford, late House Surgeon of Maidstone Hospital, son of Wm. F. Tuckett, Esq., J.P., Bath, to Annie Jane Philpott (Nancy), eldest daughter of the late Henry Lewis Soper, Esq., of Wanstead. No cards.

DEATHS.

BRAKE.—On Oct. 9th, at Grove-cottage, Porchester, Hants, William Newman Brake, R.N., Deputy Inspector-General of Hospitals and Fleets, aged 70.

CANNON.—On Oct. 12th, at 10, Eaton-place, Henry Mills Cannon, Surgeon-General, aged 72.

CARLAW.—On Oct. 10th, at the Crescent, Sandgate, John Carlaw, M.D., Surgeon-Major, late of H.M. Forces, aged 61.

EVANS.—On Oct. 18th, at The Hyde, Middlesex, Conway Evans, M.D. Lond., aged 62

FASSON.—On Oct. 15th, at Meadow-walk, Edinburgh, Charles Hamilton Fasson, Deputy Surgeon-General, Superintendent of the Royal Infirmary of Edinburgh, aged 72.

HAWKINS.—On Oct. 17th, at Wellington-place, Cheltenham, Clement James Hawkins, F.R.C.S., aged 78.

MAC KENZIE.—On Oct. 16th, at 47B, Welbeck-street, Mr. John Ingleby Mac Kenzie, M.B., Cantab., aged 58.

MURRAY.—Suddenly, at his residence, Weymouth-street, Portland-place, James Murray, M.D., aged 53.

OSWALD.—On Oct. 15th, at Glencraig, Edinburgh, Henry Robert Oswald, M.D., Surgeon-General H.M. Indian Medical Service (retired), aged 65.

SPURRELL.—On Oct. 13th, at Belvedere, Kent, Flaxman Spurrel, M.D., aged 77.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

BOOKS ETC. RECEIVED.

BLACKWOOD, WM., & SONS, Edinburgh and London.

Mona Maclean, Medical Student: a Novel. By Graham Travers. In Three Vols. Vols. I., II., III. 1892.

CASSELL & CO., Limited, London.

The Medicine Lady. By L. T. Meade. Vols. I., II., III. 1892.

DAVIS, F. A., CO., London and Philadelphia.

Book on the Physician Himself and Things that concern his Reputation and Success. By D. W. Cathell, M.D. Tenth Edition. 1892. pp. 325.

GRIFFIN, CHAS., & CO., Exeter-street, Strand, London.

The Diagnosis of Diseases of the Heart and Thoracic Aorta. By A. Ernest Sansom, M.D., F.R.C.P. Lond. Illustrated. 1892. pp. 567.

KEGAN PAUL, TRENCH & CO., Charing-cross-road, London.

First Aid in Illness and Injury. By James E. Pilcher, M.D., Ph.D. Illustrated. 1892. pp. 304.

Somnia Medici. By J. A. Goodchild. First, Second, and Third Series. Second Edition. 1892. Price 3s. 6d. per Volume.

KELIHER, J. J., & CO., King William-street, London.

Manual for the Volunteer Medical Service. By Reginald Sleman, M.A. 1892. pp. 70. Price 2s.

LONGMANS, GREEN & CO., London.

Chemical Lecture Experiments: Non-Metallic Elements. By G. S. Newth, F.I.C. 1892. pp. 323. Price 10s. 6d.

PENTLAND, YOUNG J., Edinburgh and London.

Disease in Children. By James Carmichael, M.D., F.R.C.P. Edin. Illustrated. 1892. pp. 591.

Malignant Disease of the Throat and Nose. By David Newman, M.D. 1892. pp. 213.

A New Pronouncing Dictionary of Medicine. By J. M. Keating, M.D., LL.D., and H. Hamilton. With an Appendix. 1892. pp. 818.

PUTNAM'S, G. P., SONS, London and New York.

Temperament, Disease and Health. By F. E. Chadwick. 1892. pp. 85.

SAUNDERS, W. B., Philadelphia.

An American Text-book of Surgery for Practitioners and Students. Edited by W. W. Keen, M.D., LL.D., and J. W. White, M.D., Ph.D. Illustrated. 1892. pp. 1209.

SMITH, ELDER & CO., Waterloo-place, London.

Croonian Lectures, 1892. On the Chemistry and Therapeutics of Uric Acid Gravel and Gout. By Sir Wm. Roberts, M.D., F.R.S. 1892. pp. 136.

THE SCIENTIFIC PRESS, Limited, Strand, London.

The Art of Massage. By A. C. Hale. Illustrated. 1893. pp. 144. Price 6s.

THE RECORD PRESS, Limited, 376, Strand, London.

The Practical Treatment of Cholera. By G. Sherman Bigg, A.M.S. Price 1s.

THIN, JAS., South Bridge, Edinburgh.

Pharmacopœia of the Royal Infirmary, Edinburgh. Compiled by Chas. Arthur. 1892. pp. 131.

The Medical Magazine, October, 1892 (Southwood, Smith & Co., London).—The Journal of Comparative Pathology and Therapeutics; edited by J. M'Fadyean, M.B., B.Sc., F.R.S.E.; September, 1892 (W. & A. K. Johnston, Edinburgh and London).—The American Journal of the Medical Sciences; edited by E. P. Davis, A.M., M.D.; October, 1892 (Lea Brothers & Co., Philadelphia).—Archives of Pediatrics; edited by W. P. Watson, M.D.; October, 1892 (H. K. Lewis, London; Fairchild & Co., New York).—University Medical Magazine, Pennsylvania; October, 1892 (University of Pennsylvania Press, Philadelphia).—Calendar of the Royal College of Surgeons of England, July, 1892 (Taylor & Francis, London); price 1s.—Some Thoughts about Nursing; by Oswald Browne, M.B. Cantab., M.R.C.P. (Griffith, Farran & Co., London, 1892); price 6d. nett.—The Satellite of the Annual of the Universal Medical Sciences; edited by Chas. E. Sajous, M.D.; August and September, 1892 (F. A. Davis, London and Philadelphia).—Cholera Epidemic in Kashmir, 1892; by A. Mitra, L.R.C.P., L.R.C.S. Edin. (Thacker, Spink & Co., Calcutta).—Consumption from a Public Health Point of View; by N. Carmichael, M.D., F.F.P.S.G. (A. Love, Glasgow, 1892).—Domestic Electric Lighting, treated from the Consumer's Point of View; by E. C. De Segundo (H. Alabaster, London); price 6s.—Treatment of Sacculated Aortic Aneurysm by Electrolysis through Introduced Wire; by D. D. Stewart, M.D. (Reprint from the American Journal of the Medical Sciences, Philadelphia, October, 1892).—The Early History of Instrumental Precision in Medicine; by S. W. Mitchell, M.D., LL.D., Harvard (Tuttle, Morehouse, & Taylor, New Haven, 1892).—Mechanical Restraint in the Care and Treatment of the Insane; by Clark Bell, Esq., of the New York Bar; with Opinions of Medical Men. (Reprint from Medico-Legal Journal, New York, 1892).

Medical Diary for the ensuing Week.

Monday, October 24.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturday at the same hour.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. Stanford Morton: Affections of the Eyelids.—101, Gt. Russell-street: 8 P.M., Dr. Galloway: Lungs, Tubercle and other Lesions.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. Louis C. Parkes: Sanitary Appliances.

THROAT HOSPITAL (Golden-sq.).—5 P.M. Dr. James W. Bond: Diseases of Thyroid Gland.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. G. R. Turner: Traumatic Volvulus of the Small Intestine treated by Abdominal Section.—Mr. W. A. Meredith: The Treatment of the Peritoneum in Abdominal Surgery.

Tuesday, October 25.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro therapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Hutchinson: The Treatment of Syphilis.—Bethlem Hospital: 2 P.M., Dr. T. Hyslop: Insanity of Puberty and Adolescence. 101, Gt. Russell-st., W.C.: 8 P.M., Dr. Braxton Hicks: The Forceps.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. R. J. Godlee: Amputation for Diabetic Gangrene.—Mr. J. W. Hulke: A case of Rupture of Hepatic Abscess into the Peritoneal Cavity.

Wednesday, October 26.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Fromlton: 5 P.M., Dr. Sidney Martin: Cases of Aortic Regurgitation.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Toxic Amblyopia.

THROAT HOSPITAL (Golden-sq.).—5 P.M. Dr. R. Norris Wolfenden: Pharyngitis.

HUNTERIAN SOCIETY (London Institution).—8.30 P.M. Special Discussion on "Phthisis in relation to Life Assurance," after the reading of a paper by Dr. Glover Lyon.

Thursday, October 27.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultation Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Barlow: Illustrations of Nervous Disease in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. Brudenell Carter: Ocular Symptoms in Nervous Diseases.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. George Stoker: Chronic Glandular Diseases of the Nose and Naso-pharynx. Central London Sick Asylum, Cleveland-st., W.: 5.30 P.M., Dr. Wilks: Medical Cases in the Wards.

BRITISH GYNÆCOLOGICAL SOCIETY.—Mr. G. A. Hawkins-Ambler: What makes for Success in Abdominal Surgery?

Friday, October 28.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Sidney Martin: Cases of Mitral Stenosis.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Anthrax (Gram's Method).

CLINICAL SOCIETY OF LONDON.—Living Specimens at 8 P.M.:—Dr. Hadden: A case of Rhythmical Rocking Movements in a Child.—Mr. W. A. Lane: A case of Macrocheilia treated successfully by Electrolysis.—Mr. Bland Sutton: Two cases of Amputation of the Arm for Lymphatic Œdema.—Mr. Arthur Barker: Case of Subcutaneous Suture of the Patella.—Mr. Hurry Fenwick: Two cases of Suprapubic Cystotomy illustrating New Methods. Papers at 9 P.M.:—Dr. Bristowe: A case of Sarcoma of the Skin.—Mr. Arbuthnot Lane: Two cases illustrating an Operation of Complete Erasion of the Ankle-joint.

Saturday, October 29.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. H. Corner: Delusional Insanity.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Oct. 20th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp.	Rainfall.	Remarks at 8.30 A.M.
Oct. 14	29·64	S.E.	50	49	63	53	49	·26	Raining
,, 15	29·85	E.	45	45	70	55	44	·02	Foggy
,, 16	29·73	N.E.	49	47	62	52	45	..	Cloudy
,, 17	29·91	N.E.	43	41	81	50	40	·02	Bright
,, 18	30·21	N.E.	40	38	83	50	37	·02	Overcast
,, 19	30·30	N.	40	39	79	51	38	--	Hazy
,, 20	30·10	W.	41	40	75	50	38	--	Raining

Notes, Short Comments & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

ADVERTISEMENT OF CHANGE OF ADDRESS.

W. J. B.—Advertisement through a newspaper is objectionable. The proper course is to send a visiting card by hand or post to the patients of the particular practitioner specifying change of address.

Vizen.—There can be no doubt that our correspondent is in honour prohibited from practising in a place where he has been the locum tenens of three or four medical men.

Mr. J. Lister Wright.—We are obliged for our correspondent's courteous communication. The matter to which he alludes has received attention.

Mr. John A. Bright's communication has reached us too late for publication in our present issue

T. B. G. has not enclosed his card.

"EXPERIENTIA DOCET."

To the Editors of THE LANCET.

SIRS,—Kindly allow me, by relating a late experience, to caution country practitioners how they give orders to travellers from firms in distant towns.

On Feb. 1st, 1889, a traveller from a firm called —— and Co. called and importuned me so that I gave him an order for about £2 worth of small instruments &c. The order was badly executed: some articles not sent, and one I returned, being only half the size of the one ordered. For what I kept I at once sent a cheque, which was cashed, but never yet acknowledged in any way. Eight days later, on returning from my morning round, I found a parcel that had arrived by railway and the fare on which my servant had unfortunately paid in my absence. I opened the parcel, and to my surprise found an expensive article I had distinctly told Messrs. —— and Co.'s traveller not to send. It was at once returned, and a letter sent stating that it had

never been ordered and must have been sent by a mistake. Messrs. ——— and Co. refused to take it back, and threatened me with legal proceedings if I did not pay for it. As I had then a witness (who died in January this year) who heard me tell the traveller not to send the article, I replied they could do as they pleased. From that date (Feb. 25th, 1889) to July this present year (nearly three years and a half) I heard nothing from them, and then was served with a county-court summons for the article, priced higher than its published price. This week I defended in ———, and the judge ruled that I was liable since the railway fare had been paid by me, although there was nothing to show what was in the parcel, as the plaintiffs neither in their bill or otherwise advised me (as they could and should have done) that it would be forwarded. Judgment was given for nearly 5*s.* less than claimed.

I wish practitioners to note that in all such cases they must defend in the towns the plaintiffs belong to and not in those where the orders were given, also the danger of receiving and paying for carriage on parcels with unknown contents. If an order is given in the way mine was it would be well to have an exact copy of it signed by the traveller. Perhaps best of all is to give no orders whatsoever to strangers, however they importune, and so escape the trouble, annoyance and expense I have experienced.

I am, Sirs, yours truly,
Ormskirk, Oct. 15th, 1892. HENRY PILKINGTON, M.R.C.S., &c.

INFECTION IN SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—As the question of infection in the early stages of scarlet fever has lately been discussed in your columns, and as one positive case is worth a dozen negatives, I think the following record of cases which happened in my individual experience will be interesting to your readers. It seems to me to prove that sometimes, at any rate, scarlet fever is infectious at the very beginning.

A patient was brought into hospital for, if I remember rightly, leucocythæmia, was placed in the end bed of the back ward nearest the door, and quite close to the ward kitchen door. In a few days' time she developed scarlet fever, and was removed to the fever hospital as soon as the rash was pronounced. The ward was not disinfected, but the bedstead &c. was—the bedding being, in fact, destroyed, floor and walls scrubbed with carbolic, and, in short, all the ordinary precautions were taken, in spite of which the next patient placed on the bedstead developed the disease. The same precautions were again gone through, but again the next patient developed scarlet fever. And this went on for quite a series of cases—I believe six or seven,—including the ward maid (who passed the bed frequently on her way to and from the kitchen) and one of the clerks of the ward; but no case occurred in any other bed in the ward. Finally, the whole ward was turned out, all the bedding destroyed and the place thoroughly disinfected with sulphurous acid. After this there were no more cases. There had been no scarlet fever about the hospital previously.

To me this occurrence affords unmistakable evidence that scarlet fever must be in some instances infectious during the first stage. Moreover, the peculiar obstinacy of the infection and the vigorous measures necessary to getting rid of it were well shown.

I am, Sirs, yours truly,
E. D. FITZGERALD, M.R.C.S., L.R.C.P.

Sandgate-road, Folkestone, Oct. 18th, 1892.

"GREEK AND THE M.D. DEGREE."

To the Editors of THE LANCET.

SIRS,—Your correspondent's letter in your last issue on the substitution of German or French for Greek before proceeding to the M.D. degree is one of considerable importance, and affects a large number of men who find it impossible in the worry and work of practice to settle down and grind up Greek; whereas German or French come so much lighter on account of the medical literature that is written in these modern languages. Union is strength; and if the authorities of the universities are made aware of the feeling of graduates of some years' standing on this question they will, I hope, accede to their wishes. The difficulties in the way of signing any petition are so great that it would be almost hopeless to attempt it; but I would suggest that all who feel that it is desirable to make this new regulation retrospective should write without undue delay to the Dean of Faculty, asking if it be possible to grant their request.

I am, Sirs, yours obediently,
Ashburn-place, S.W., Oct. 17th, 1892. AUGUSTUS W. ADDINSELL.

"OWNERSHIP OF PRESCRIPTIONS."

To the Editors of THE LANCET.

SIRS,—You say (page 921 of your last issue), "It is obvious that a prescription belongs to the person who pays for it—viz., the patient." It is obvious, then, that the F.R.C.P. is a tradesman and sells his prescription, and thus violates the by-law of that Society. The F.R.C.P. is supposed to accept an honorarium for his advice, and because he does not make up the medicine he advises should be used gives the prescription to be taken to an apothecary, the medicine to be used for the length of time prescribed by the F.R.C.P. It is a fraud on the part of the patient either to use the prescription for a longer time himself than first prescribed or to give the same prescription to another person. It is a fraud also on the part of the apothecary to make up the prescription for any longer time than intended by the F.R.C.P. or for any other person.

I am, Sirs, yours truly,
Oct. 17th, 1892. H. F. S.

MEDICAL PRACTICE IN THE UNITED STATES OF AMERICA.

To the Editors of THE LANCET.

SIRS,—The laws regulating practice in the different States vary considerably. In the New England States, Ohio, Wisconsin and Kansas there are no restrictions at all, while in New York and Pennsylvania a pretty stiff examination must be passed prior to registration. An examination is held at intervals at certain fixed centres in New York State—viz., the University of New York, E. 26th Street (Charles Pardu, M.D., Secretary). Buffalo and Syracuse. The fee is twenty-five dollars. Candidates are examined in anatomy, physiology, medicine, pathology, surgery, obstetrics and hygiene, in a similar fashion to Licentiates of corporations over forty years of age who go in for M.D. of Durham or St. Andrews in this country. Professor Melvil C. Dewey, Secretary to the Regents of the State University, Albany, N.Y., will furnish full particulars of dates and subjects and supply a schedule to be filled up on application. The diplomas of successful candidates are endorsed by the Regents of the State University, M.D.'s having a "special form setting forth the fact," and Licentiates another form somewhat differently worded. The diplomas after endorsement must be registered by the County Clerk—in New York City at the City Hall, and in rural districts at the court-house of the county in which it is intended to practise. The fee is a dollar. If it be wished to practise in two or more counties registration in each is necessary at an additional cost of fifty cents. In Pennsylvania candidates must pass a similar examination at either Jefferson Medical College or the University of Pennsylvania, Philadelphia, those being the only universities empowered to grant medical degrees in the State. In Chicago, which is probably the most suitable opening for an Englishman, the diploma is simply produced before the State Board of Health. Chicago is increasing in population more rapidly than any other city in the States. It now stands second. The States present a very wide field, and it would be no easy matter to predict success or failure in a given instance. A good deal of local prejudice exists against foreigners. They prefer the home-made article, even if inferior. The sanitary laws are enforced very strictly at New York, especially the notification of infectious diseases. The profession, as almost everywhere, is overstocked; but it will be said that "there's always room at the top." A polyglot dictionary would not be a bad investment to start with. I am not joking. I have had Greeks, Poles, Russians, Armenians, Hungarians, Chinese, Italians and Dutch patients. Some speak a little English; but the greater part of the conversation was carried on by signs or through interpreters who knew little more than the patients themselves. The fees depend on the class of the *clientèle*. Working men pay a dollar per visit, and the same for advice and prescription; small shopkeepers &c. two dollars, and so on upwards. Midwifery from ten to twenty dollars and upwards, according to class. Medical men never do their own dispensing, unless in the backwoods. The chemists in Pennsylvania are well qualified, many being Doctors of Pharmacy. All Government appointments—such as coroner, medical officer of health &c.—are open to citizens only, but a foreigner may, of course, act as surgeon to Oddfellows, Foresters or any private clubs. Practices are rarely bought or sold as in England. Beware of them as an investment. A practitioner usually starts on his own account—"hangs out his sign," as the local phraseology goes, or he may occasionally obtain an assistancy to an older man. Assistantships are difficult to secure, because local men "know the ropes" better and are accordingly more sought after. A surgeon in the army or navy becomes *ipso facto* a citizen. I fear my communication grows lengthy, so I shall conclude by saying that the prospects of most men with British qualifications would probably be better in a British colony, although I am personally acquainted with four such in New York city (two being hospital surgeons) who have done well; but I am convinced they would have done equally well, if not better, in any English or Australian town presenting sufficient scope.—Yours truly,

J. A. MCMUNN, M.D.
October, 1892. (Registered at New York in 1891).

LUNACY CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—Four months ago I received a magistrate's order to examine a person as to her mental condition. After several visits to assure myself of her mental unsoundness I certified her. The day after I did so she was so weak from self-starvation that I delayed her removal for six weeks and had her fed with nutrient enemata during that time. Then I re-certified her and she was removed, but, as I afterwards casually heard, only to the union infirmary, not to the asylum. I have not been paid for my certificate. The usual course of late years is for the magistrates' clerk to direct the Poor-law guardians to pay the medical man who certifies. I called upon the magistrates' clerk, but could not get a satisfactory reply from him. On a former occasion I was not paid for certifying the patient because (as I was informed by the partner of the magistrates' clerk) the patient was not sent to the asylum but to the union infirmary. I do not see that the medical man has anything to do with that.

I should feel obliged if you would kindly inform me what steps I ought to take, as I consider it monstrous that after all my trouble I am to be defrauded of my fee. And I should be glad to know whether I should be at liberty to refuse to act upon receiving any future magistrates' orders, or if I am compelled by law to examine and report without fee or reward. In this latter instance I still have the magistrates' order by me; but in the former case I was directed (rather smartly, I thought) to write my report on the back of the magistrates' order and not upon a regular printed form.

Yours truly,
Oct. 18th, 1892. THORAX.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Communications, Letters, &c., have been received from—

A.—Dr. Augustus W. Addinsell, London; Messrs. Armour and Co., London; Messrs. Allen and Hanburys, London; Mr. Allen, Cardiff; Lieut.-Col. W. H. Allsop, Carlton Club; Mr. Ablewhite, Wandsworth.

B.—Mr. Bond, Essex; Dr. Ballance, London; Mr. Botwood, Ipswich; Mr. Blackwood, London; Mr. Birchall, Liverpool; Mr. W. J. Baird, Bury; Dr. R. P. Banerjie, Pachbadda, India; Mr. Brown, London; Dr. Bateman, London; Mr. Britton, London; Messrs. Blackwood, Edinburgh; Mr. Bennett, London; Mr. Burden, London; Mr. Burton, Richmond; British Nurses' Association; British Dental Association.

C.—M. L. Carnot, Paris; Messrs. Condy and Mitchell, London; Mr. Cooper, Grantham; Mr. Campbell, London; Mr. Coombs, London; Dr. H. Evelyn Crook, Margate; Professor Cleland, Glasgow; Mr. Ralph Cann, Plymouth; Dr. H. Campbell, Guilford-street; Cairo, Newcastle-on-Tyne; Clayton Hospital, Wakefield.

D.—Dr. Thos. Dutton, London; Mr. Dutton, Stoke Newington; Mr. Dagmar, London; Mr. Dugdale, London; The Dean, Westminster Hospital; Dispenser, London; Delta, London.

E.—Mr. Evans, London; Mr. Ellen, Tufnell-park; Dr. F. G. Elliot, Hull; Electropathic and Zander Institute, London.

F.—Dr. A. Hansury Frere, Leeds; Mr. E. D. FitzGerald, Folkestone; Mr. Frowde, London; Mr. W. Fingland, Waventree; Mr. Foss, London; Franz, London.

G.—Dr. Glaser, Carlsbad; Messrs. C. Griffin and Co., London; Dr. J. C. M. Given; Globe Parcels Express, London; General Practitioner.

H.—Dr. Herman, London; Mr. J. Lawrence-Hamilton, Brighton; Dr. Horn, Edinburgh; Mr. G. H. Huntley, St. Leonards; Mr. C. Heard, Yorkshire; Mr. Fred. Harrison, London; Dr. Hedley, Brighton; Dr. W. R. Huggard, Davos Platz, Switzerland; Mrs. Hicks, London; Mr. Hornibrook, Bloomsbury; Mr. Hinchcliffe, Sheffield; Messrs. J. H. Holmes and Co., London; Mr. Horace Haynes, Evesham; Dr. Hyde, Buxton; Mr. Hooper, London; Mr. Hall, London; Mr. Harper, New Cross; Hunterian Society, London; Hospital for Women, Soho-square.

I.—Inquirendus.

J.—Mr. James, London; Mr. Jack, Glasgow; Mr. J. A. Eyton Jones, Bawtry, Yorks; Mr. Johnson, Leicester.

K.—Mr. Klugh, London.

L.—Mr. Law, London; Messrs. Lee and Nightingale, Liverpool; Mr. Lewis, London; Mr. Langdon, Preston; Dr. Edward Lawrie, Hyderabad; Mr. W. H. Leggott, Bradford; Dr. J. Limont, Newcastle-on-Tyne.

M.—Messrs. Margrave Bros., Llanelly; Mr. Mundy, Bath; Messrs. Macfarlan and Co., London; Mr. McNamara, Maida Vale; Mr. C. Macnamara, Dublin; Dr. James Muir, Coatbridge; Dr. Maxwell, Woolwich; Professor McVail, Glasgow; Dr. W. F. Menses, Prescot; Mr. Madden, Dublin; Dr. Albert Mills, Bruxelles; Mr. Montgomery, Balham; Mr. Morey, Peckham; *Medical Press and Circular* Office, Dublin; Maltine Co., Bloomsbury.

N.—Mr. Cowley Norman, Dublin; Mr. A. E. Nevins, Hanley.

O.—Mr. Ould, London.

P.—Dr. Leslie Phillips, Birmingham; Mr. H. Pilkington, Ormskirk; Dr. Priestley, Leicester; Mr. Potter, London; Mr. Pentland, Edinburgh; Mr. Pickering, London; Mr. Peacock, Sunderland.

Q.—Queen's Jubilee Hospital.

R.—Dr. W. Robertson, Newcastle-on-Tyne; Dr. W. L. Reid, Glasgow; Dr. T. Cartwright Reed, Cape Town; Messrs. Roberts and Co., London; Messrs. Reynolds and Branson, Leeds; Dr. Ralph, Shepherd's Bush; Mr. Richards, London; Mr. Roper, London; R. K., London.

S.—Dr. W. J. Sinclair, Manchester; Dr. R. S Shepherd, Pau; Dr. Fly Smith, Haverstock-hill; Dr. W. Stewart, Asuncion; Dr. Fred. J. Smith, Finsbury-square; Dr. Seaton, Clapham; Mr. Sturges, London; Mr. Snell, Sheffield; Mr Sternberg, London; Messrs. Street and Co., London; Mr. Scriven, London; Dr. Spitzly, Leicester; Messrs. Smith, Elder and Co., London; Dr. Shepherd, Lincoln; Mr. Stapleford, London; Sanitas Co., London.

T.—Mr. John Tweedy, London; Dr. W. J. Tyson, Folkestone; Messrs. Thorp and Co., Glossop; Mr. Twiss. St. James's-square; Messrs. Thompson and Co., London; T. B. G.

V.—Mr. Vicary, Brighton; Vicar, Yorks.

W.—Dr. J. Wilkie, London; Mr. Campbell Williams, London; Dr. Ward, Oxford; Mr. R. Weaver, Seamen's Hospital, Hamburg; Mr. Whitworth, Upton-park; Dr. Wagner, St. Louis, U.S.A.; Mr. Watt, London; Messrs. Waters and Co., Bournemouth; Messrs. Whitworth and Stuart, Manchester; Mr. Walker, London; Mr. Wood, Pontypool; Mr. Watts, Greenwich; Mr. Washbourne, Stoke Newington; Mr. Walker, Belfast; Mr. Wallace, Weston-super-Mare; Mr. Woodgate, London; Dr. Williams, London; Mr. Warrilow, London; Mr. Williams, London.

Letters, each with enclosure, are also acknowledged from—

A.—Mr. Ambrose, Islington; Mr. Adams, Norbiton; Mr. Adams, Ipswich; Mr. Andrews, Carmarthen; A. B., Leeds; Alton, Alton; A. B. C., London; A. W., Llanarthney; A., Lewisham-road.

B.—Mr. Birkenhead, Atherstone; Mr. Breach, Newbury; Dr. Bond, Sicula; Mr. Brodie, Fakenham; Mr. Butterfield, Northampton; Miss Bullen, Balham-hill; Mr. Barnett, Colwyn Bay; Mr. Butlin, Harley-street; B., London.

C.—Mr. Creasy, Wrotham; Cam, London; Clerk, Malling Union; C. B. A., London; Cheltenham General Hospital; Corporation of Newcastle-on-Tyne; Chelsea Hospital for Women; Class Rooms, Edinburgh.

D.—Messrs. Duncan, Flockhart and Co., Edinburgh; Dispenser, London.

E.—Mr. Elwin, Dover; Mr. Everitt, London.

F.—Mr. Fairweather, Yorks; Mr. Fox, Chesterfield; Mr. Fiske, Aylesbury; Dr. Forest, Warkworth; Mr. Ferguson, Brondesbury; Dr. Findlay, Lincoln; Fellow, London.

G.—Dr. Griffith, Ravenglass; Mr. Giles, Hereford; G., Bridport; Graduate, London.

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